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EDWARDS'S

BOTANICAL REGISTER:

OR,

ORNAMENTAL FLOWER-GARDEN

AND SHRUBBERY:

CONSISTING OF

COLOURED FIGURES OF PLANTS AND SHRUBS,

CULTIVATED IN BRITISH GARDENS;

ACCOMPANIED BY THEIR

History, Best Method of Treatment in Cultivation, Propagation, &c.

EDITED

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&c. &c. &c.

NEW SERIES,

COMPLETE IN TEN VOLUMES.

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MDCCCXLVII.

Miss Drake del.

Pub.d by J. Ridgway 169 Piccadilly June 1.1847

G Barclay sc

DENDROBIUM triadenium.

Three-knobbed Dendrobe.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

DENDROBIUM.—Swartz.

D. (Onychium) *triadenium* (Lindl. in Bot. Reg. 1846, sub. t. 64); radicibus villosis, caulibus elongatis teretibus ramosis basi fusiformibus, foliis ovato-oblongis obtusis, paniculâ brevi terminali confertiflorâ racemosâ, sepalis ovatis acutis, petalis labelloque oblongis undulatis rotundatis emarginatis hoc glabro utrinque unidentato medio tuberculo tricrenato aucto, mento brevi obtuso, columnâ apice dentatâ, stigmate villoso.

In characterizing this species, a few weeks since, we spoke of it as a lovely plant, with the habit of *Dendrobium crumenatum*, but with a very close racemose panicle of flowers, transparent, about as large as in *D. aduncum*, nearly white, with a tinge of rose, a violet spot on the end of the petals and lip, and a 3-lobed yellow tubercle in the middle of the latter.

The accompanying figure will shew that the character thus given of it was merited, and it will also serve to bring to the recollection of many the beautiful specimens of it produced in Mr. Rucker's noble collection, as well as a spotless variety, hardly inferior, though different, which has been obtained by Messrs. Rollissons.

From what part of the East Indies it has been procured is uncertain; but as the focus of the Dendrobes with a thickened base to their stems is the Indian Archipelago, it is probable that this has been derived from that quarter.

The three yellow knobs of the lip, the close inflorescence, and the deeply lobed, almost quadrangular petals, distinctly mark the species.

Fig. 1. represents the column; 2. the lip, with its triple knob or gland.

January, 1847.

New Garden Plant.

Xiphidium *giganteum*; foliis latissimis margine integerrimis acutis paniculâ racemosâ contractâ multiflorâ breviori-bus, rachi altè sulcatâ pubescente ramulis omnibus simplicibus secundifloris, floribus albis glabris.
Caraccas, His Grace the Duke of Northumberland.

This flowered at Syon in October. It is a large Iris-like plant, with leaves more than two feet long, and $2\frac{1}{2}$ inches broad. When in flower it is nearly four feet high. The blossoms are small, white, smooth, and arranged in one-sided racemes, which closely cover the very strong axis of inflorescence. It is not a plant of sufficient beauty to deserve cultivation on that account; but it is of considerable botanical interest as a new species of a genus little known to science. The examination of it has shewn that the cells of the ovary are *alternate with* the petals, as in other Lilyworts, and *that it possesses no character to distinguish it from that order*, unless the fruit, which is unknown to us, should furnish one. (A slip of the pen having caused this paragraph to express exactly the reverse of what was intended, it has been thought better to reprint it, than to publish a mere erratum.)

Miss Drake del.

G. Barclay sc

Pub.d by T. Ridgway 169 Piccadilly Jan.y 1 1847

STATICE eximia.

Large Pink Sea Lavender.

PENTANDRIA *PENTAGYNIA.*

Nat. ord. PLUMBAGINACEÆ. (LEADWORTS, *Vegetable Kingdom, p.* 640.)

STATICE, L.

S. *eximia;* foliis radicalibus oblongis obovatisve in petiolum attenuatis (viridibus) cartilagineo-marginatis ex apice mucronatis, scapo aphyllo erecto apice ramoso ramisque simplicibus teretibus pubescentibus, squamis chartaceis mucronatis, fasciculis quadrifloris densissime congestis secundis bracteis floribus sublongioribus scarioso-marginatis cinctis, bractea exteriore ovata mucronata altera tricuspidata obcordata, intimis scariosis oblongis mucronatis, calycis limbo quinque-angulato angulis (lobis) acutis.—*Fischer & Meyer in Enumeratio Plant. Schrenck, p.* 13. *Karelin & Kirilow in Act. Mosq.* 1842, *p.* 470.

Radix *perennis.* Folia *omnia radicalia, illis* S. scopariæ *vel* Gmelini *similia, viridia, margine angusto albo crispato cincta, obtusiuscula, ex apice mucronata, mucrone recurvato.* Scapus *sesqui-bipedalis, squamis instructus paucis amplexantibus chartaceis margine scarioso mediocri cinctis et mucrone deciduo terminatis;* rami *semper indivisi, apice florum* fasciculis *in formam ovatam congestis, secundis,* bracteis *magnis latis involucratis ornati.* Calycis *tubus pubescens, limbus dilatatus subquinquelobus vel potius quinqueangularis, angulis (lobis) acuminatis sæpe crenulatis, sinubus rotundatis, lobis intercalaribus nullis.*—Fisch. & Meyer, l. c.

This is a hardy perennial, growing from one to two feet high, if planted in an equal mixture of sandy loam and peat. It may be increased by dividing the old plant when large enough and in a dormant state, but the best means of propagation is by seed; seedlings, however, will not blossom before the second season. It flowers from July to September.

Raised in the garden of the Horticultural Society from seeds received from Dr. Fischer in 1844, and said to have been "collected by Dr. Schrenk on the Chinese limits in the south of Songaria." Upon turning to the account of Schrenk's plants, published by Drs. Fischer and Meyer, we find that its native place is the plains near the mountains of "Karatan and Labassy." Karelin and Kirilow also found it "in open

places on the mountains of Alatan, near the river Sarchan, and in the sandy wastes of Songaria near the river Lepsa."

It is a fine perennial, differing, according to Fischer and Meyer, from *S. speciosa* and *elata*, in its branches being terete not three-cornered or winged ; to say nothing of other marks of distinction.

Miss Drake del.

Published by J. Ridgway 169 Piccadilly June 1st 1847

G. Barclay sc

AZALEA squamata.

The scaly Azalea.

PENTANDRIA *MONOGYNIA*.

Nat. ord. ERICACEÆ. (HEATHWORTS, *Vegetable Kingdom, p.* 453.)

AZALEA.—Linn.

A. *squamata ;* foliis junioribus ferrugineo-pilosis vetustis ovalibus acutis subcoriaceis breviter petiolatis calvis nunc basi angustatis, floribus 8-10-andris solitariis ante folia e squamis numerosis ferrugineis imbricatis pilosis erumpentibus, pedunculo squamarum longitudine villoso, calyce obsoleto 5-dentato, corollæ breviter campanulatæ petalis obtusis quinto multo minore.—*Lindley in Journal of the Horticultural Society, vol.* 1. *p.* 152.

This fine addition to our Chinese Azaleas, has been sent to the Horticultural Society by Mr. Fortune, who found it on the mountains of Hong Kong, as we learn from the Journal of the Horticultural Society, in which is the following account of it :—

"With the habit common to all the Chinese Azaleas, this presents the following peculiarities :—In its natural state it blooms without leaves, producing at the end of every little shoot a large solitary flower of a clear rose-colour, distinctly spotted with crimson on one side, and guarded at the base by a large sheath of bright brown scales (whence its name). Its calyx, unlike that of the neighbouring species, is reduced to a mere five-toothed rim. Its ovary, immediately after the fall of the corolla, projects in the form of an oblong body quite covered with coarse brown hairs. The leaves when young are somewhat like those of A. indica, and have nothing distinctive in their shape or surface ; but when old they are oval, sharp at each end, perfectly hairless, and as even on the upper surface as those of Rhododendron punctatum.

"This plant has been long known from dried specimens and drawings sent from China by Mr. Reeves, the latter of which are preserved in the library of the Horticultural

Society; but it has never before been introduced alive. At present its flowers have only been produced by plants out of health, and therefore they have given no just idea of the beauty of the plant, which is one of the finest in cultivation.

"The beautiful spotted flowers (although not large) and the neat foliage, together with a dwarf habit, will render this a plant of considerable importance either in a greenhouse or shrubbery."

The species will probably prove hardy, for it has borne a temperature of 11° Fahr. without apparent damage. In a case, containing several plants, Mr. Fortune sent home a portion of the soil, *brown loam*, in which this species was found wild, and for the purpose of trying its effects one plant was potted in it; but it has by no means the healthy appearance of those potted in rough sandy peat. It strikes freely from cuttings of young wood under ordinary treatment; and like other Chinese Azaleas, is much improved by a top-dressing of leaf-mould, or well-rotted dung.

Published by S. Curtis, 1847

CROCI.

Crocuses.

TRIANDRIA *MONOGYNIA*.

Nat. ord. IRIDACEÆ.

CROCUS.—Bot. Reg. 1843, *fol.* 21.

*** For the accompanying figures, and the following descriptions, of some very rare and curious Crocuses, we have to express our acknowledgments to the Hon. and Very Rev. the Dean of Manchester.

F. 1. *C. Chrysanthus* (Bot. Mag. 1841. 3862, p. 2. Nobis 1842. M. p. 27.); c. tun. vag. interiore durâ lævissimâ pallidè badiâ annulo ad basim circumscisso, exteriore proximâ durâ lævissimâ fibris raris parallelis inferne demum parallelo-lacerè incisâ, fol. exter. durâ lævissimâ medio cormo vel supra affixâ, scapo nudo, spathâ bracteatâ, limbo aureo sub-unciali basi extus concolore vel subbrunneo, fil. aureis pubescentibus antheras aureas non æquantibus, foliis $\frac{1}{4}$ unc. latis suberectis costâ dorsali minutè ciliatâ, seminibus subpurpureo-brunneis chalazâ saturatiore apiculatâ mediæ vel ultra magnitudinis. Var. 1. unicolor; *fl. toto aureo. Spec. Fridwalski ex Rhodopes radicibus.* Var. 2. bicolor; Nobis, *f.* 1. *in montibus Naupliæ invenit P. Vrioni. Hujus forsan C. Suterianus var. est; annulo obsoleto.*

F. 2. *nivalis* (Bory St. Vincent); C. *sublimis* (nobis 1845. Misc. 73.); C. tunicis vaginaceis duâbus tenuibus membranaceis, tertiâ interiore durâ fortiter reticulatâ non truncatâ neque cribratâ prope basim sine stellâ persistente affixâ (f. 2*) foliaceis setosè apiculatis in vertice sitis fibris reticulatis, foliis 4-7 canaliculis enervibus costâ nervatâ, scapo nudo, spathâ bracteatâ, tubo pallido, fauce extus violaceo-fuscescente notato intus lævi luteo, limbo ad basim aurantiaco sepalis majoribus saturatè violaceis petalis pallidioribus, filamentis lævibus aureis fauci insertis, antheris aureis erectis filamento duplo longioribus stylo brevioribus eique adpressis, stigmatibus brevibus vix fissis coccineis, capsulâ apicem versùs purpureâ nudâ, seminibus parvulis compressione subangulatis glabris pallide brunneis, chalazâ saturatiore prostante raphe pallidâ corrugatâ. *In Taygeto usque ad verticem ferè; in forestâ Cubæ dictâ prope Pylon; in monte Delphi dicto in Eubœâ, et in monte Corydallo Athenis propiore; nive fusâ statim in excelsis floret. Cùm C. Sieberianum suum ex Troadis et Cretæ montibus tunicâ foliaceâ exteriore cormi basi affixâ eundem esse cum C. nivali (Bory) esse declaraverat, crocum ex Eubœâ t. fol. ext. in vertice sitâ C. sublimem dixi. Cùm verò mihi vix certa fides esset definitionibus Gayanis ex sicco sumptis, ad Taygetum C. nivalem, ad Pylos C. Boryanum e locis ubi Bory invenerat, quærendos misi. C. nivalis apud me vivus a definitione C. Sieberi, Gay, abhorret.*

F. 3. C. *Veluchensis* (nobis 1845. Misc. 72.); scapo nudo, c. verno affinis; limbo violaceo apice sæpe pallido vel albescente maculâ saturatiore transversâ appositâ. *Ex monte altissimo Veluchi dicto in Ætolia, ubi scaturigines Sperchii fl.*

F. 4. C. *Salzmannianus* (Gay, B. F. 25, 220.); C. *tingitanus* (Herbert, B.M. 3868. f. 2.); cormo pyriformi t. vag. int. sub-membranaceâ demum in fibras parallelas superne acutè confluentes solutâ, exterioribus basi persistentibus, foliaceis lævissimis superne setosè apiculatis exteriore

parum vel longè infra medium, proximis gradatim altiùs affixis, foliorum circ. 7 synanth. marginibus crassis brevibus costâ vix nervatâ lævi canaliculis enervibus, scapo involucrato, spathâ pallidè subvirescente exsertâ ebract atâ, tubo exserto, limbo circ. $1\frac{3}{4}$ unc. acuto pallidè violaceo, fauce lævi intus sublutescente extus nebulosè substriato, fil. lævibus luteis anth. aureas non æquantibus, stigmatibus pallidè aurantiaceis asprè multifidis erectis anth. æquant. vel superantibus. *Fl. autumnali ; habitat colles prope Tingidem.*

F. 5. C. *Byzantinus*, Parkinson, Par. 168. Ker, Bot. Mag. 1111. p. 2. A.D. 1808 ; C. *Banaticus*, Gay, B. F. 25, 220. A.D. 1831 ; C. *speciosus* Reich. icon. B. c. 10 ; C. *iridiflorus*, Heuffel et Reich.—c. depressè complanato, tunicis tenuibus vaginaceis demum in fibras liberas subreticulatis inferne parallelas solutis, interiore circiter medio, proximâ prope basim affixâ, foliaceis reticulatè nervatis supra med. c. affixis, scapo involucrato, spathâ ebracteatâ 1-2-florâ, sepalis patentibus lætè violaceis sesquiuncialibus vel ultra, $1\frac{1}{4}$ unc. vel infra latis petala multum angustiora erecta apicibus recurvis pallidiora vel subalba apice violacea longè superantibus, fauce lævi alba, antheris luteis, filamentis albis lævibus infra faucem insertis, stigmatibus multifidis diffusis saturatè violaceis, foliis hysteranthiis utrinque attenuatis. *Fl. autumnali ; in sylvis Banatûs ; in Wallachiâ prope Krassoviam ; ex Byzantio accepit Parkinson.*—W. H.

Crocus Byzantinus, a beautiful and very remarkable species, was so named by Parkinson, who received it from Constantinople, and the name was confirmed by Mr. Ker, and published by him long before the application of the other names. Iridiflorus would have been the most appropriate. C. chrysanthus does not belong to C. annulatus, as conjectured from Fridwalski's specimen, while the rings belong to the inner vaginaceous coat of many successive years. C. nivalis, first discovered by Bory on Taygetus, does not agree with Gay's description of his C. Sieberi from Crete and the Troad, but is identical with our C. sublimis, which, on the faith of Mons. Gay's assertion that nivalis was his Sieberi, was supposed to be distinct. The name *sublimis* must therefore give way to *nivalis*, by which the species must be called. Whether Mons. Gay's error was merely the supposing the Greek plant to be identical with that which he had from Crete and the Troad, I know not. If they are identical, and the error is in his description from dry specimens which are not easily investigated, the name given in an erroneous definition must fall to the ground, and cannot supersede Bory's. C. Salzmannianus is perhaps the only African Crocus, but it will probably not flower freely here except after hot summers. The flowers of C. Byzantinus vary a good deal in colour, and are often much larger and taller than in the accompanying plate. C. Veulchensis has much affinity to C. vernus.—W. H.

1

2

CALOSCORDUM nerinefolium.

Nerine-leaved Caloscord.

HEXANDRIA *MONOGYNIA*.

Nat. ord. LILIACEÆ. (LILYWORTS, *Vegetable Kingdom, p.* 200.)

CALOSCORDUM; (vel si mavis, Allium, § Caloscordum). *Tubus* cum pedunculo articulatus, subsexangularis, inferne ampliatus, germen breve comprehendens, ore membranâ inconspicuâ staminiferâ munito; *limbus* tubum longe superans reflexe patens laciniis uninervibus; *filamenta* vix inferne dilatata, *petalina* ore tubi, *sepalina* parum infra inserta; *antheræ* parvulæ; *stylus* cylindricus brevis cito marcescens non deciduus; *stigmata* tria, brevia, tenuia, patentia; *capsula* subrotunda.——Folia *linearia;* semina *obovata, rugosa, nigra, hilo albido;* odor *alliaceus* nullus.—*Herbert in Bot. Reg.* 1844. *Misc. no.* 64.

C. *nerineflorum;* bulbo parvulo, foliis dodrantalibus $\frac{1}{12}$ unciæ latis subglaucis crassis dorso rotundato superficie subcanaliculatè planâ, caule 7-unc. vel infra tenui, spatha $\frac{3}{8}$ unc. univalvi latâ 1-2-bracteatâ, pedunculis subduodecim $2\frac{1}{2}$ unc. vel infra, perianthio vix semunciali roseopurpurascente striâ mediâ obscuriore.—*Herbert, l. c.*

This plant was sent to Spofforth by J. Trevor Alcock, Esq., who received it from Chusan when that island was occupied by our troops, and it has since flowered three seasons. The Dean of Manchester, to whom we are indebted for our specimens, has given a very full account of it at the place above quoted, and remarks that *Allium chinense* is no doubt another species of the genus.

Dr. Herbert distinguishes Caloscordum from Allium, Pseudoscordum, &c.—1. by the form and articulation of the tube which includes the ovary; 2. by the filaments being inserted deeper, and not having a membranous dilatation; 3. by the withering style; and 4. by the recurved direction of the lobes of the perianth.

Although this plant puts on an attractive appearance in the accompanying plate, yet we cannot recommend it for ornamental cultivation, for it is often much smaller, and its foliage is miserable.

Mr. Fortune found another species with longer styles (102 of his Herbarium) in Chusan, with small heads of flowers not more than ten in number, and only half the size of this. We propose to call it C. exsertum, and to define it thus :—

C. *exsertum* ; foliis angustissimis planis scapo duplo brevioribus, umbellâ pauciflorâ contractâ, pedicellis perianthio vix duplò longioribus, staminibus exsertis stylo filiformi brevioribus.

CYANANTHUS lobatus.

Lobed Cyananth.

PENTANDRIA *MONOGYNIA.*

Nat. ord. POLEMONIACEÆ? (POLEMONIADS? *Vegetable Kingdom, p.* 635.)

CYANANTHUS (*Wallich. Bentham in Royle's Illustrations, p.* 309) *Calyx* tubuloso-campanulatus, semiquinquefidus. *Corolla* hypogyna subinfundibuliformis, tubo amplo, limbo quinquefido. *Stamina* 5, hypogyna, corollæ lobis alterna, inclusa; *filamenta* subulata, æqualia, libera; *antheræ* ovatæ, conniventes v. connatæ. *Ovarium* quinqueloculare parietibus pilosis. *Ovula* in loculorum angulo centrali plurima. *Stylus* terminalis, simplex; *stigma* quinquefidum. *Capsula* oblongo-conica, quinquelocularis, loculicido-quinquevalvis, valvulis carinato-cornutis. *Semina* plurima, oblongo-linearia. *Embryo* parvus orthotropus, in medio albuminis carnosi eoque dimidio brevior. ——Herbæ *nepalenses, parum ramosæ, procumbentes v. adscendentes;* radicibus *carnosis;* foliis *alternis;* floribus *paucis solitariis, sæpius terminalibus,* calycibus *nigro-villosis,* corollis *speciosis cæruleis.*

C. *lobatus;* pilosus, foliis rhombeis subtus cinereis supra incisis infra indivisis, corollæ laciniis sub apice barbellatis.

C. lobatus, *Wallich Cat. no.* 1473. *Bentham in Royle's Illustr. p.* 309, *t.* 69. 1.

The station of this genus in the Natural System is undetermined. Mr. Bentham originally referred it to Polemoniads (Royle's Illustrations, p. 309); but he has more recently assigned it a station among Bellworts, relying upon the 5-celled ovary, the hypogynous stamens, and the milky juice. He would even station it near Wahlenbergia, "differing only in its free calyx, in the same way as L. xalapensis differs from L. Cliffortiana." *Linn. Trans.* xx. 82. We do not entirely acquiesce in this conclusion, although we fully admit the importance of the circumstances which Mr. Bentham relies upon. The difficulties that occur to our mind consist in the very small quantity of milk which flows when the plant is wounded, in the imbricated, not valvate, æstivation of the corolla, in the small and imperfect "collectors" on the style. Mr. Edgworth's description of the seed-vessel,

"5-locularis, apice vacua, loculicidè dehiscens, valvis dorso carinatis acutis cornuformibus," certainly reads very like that of a superior fruited Microcodon, and the habit of the genus Cyananthus may be compared to that of many Bellworts. Yet we cannot but feel as much repugnance to admitting a superior fruited plant, with an imbricated corolla, among Bellworts, as we have to receive among Polemoniads a plant with a 5-celled ovary, and hypogynous stamens; we must, therefore, continue to suspend our opinion respecting the natural position of Cyananthus, until further evidence shall have been obtained.

C. *lobatus* appears to be a native of the higher ranges of the Himalayas. It was raised in the garden of the Horticultural Society, from seeds received from Captain William Munro, in April, 1845, and said to have been "collected in Chinese Tartary, on the Snowy Passes, at an elevation of 12,000 feet, in October, 1844."

It proves to be a delicate hardy little herbaceous plant, with small fleshy roots, like those of some species of Campanula. It grows best in a mixture of sandy peat and leaf-mould, with plenty of moisture during the growing season, but afterwards it should be kept rather dry, and allowed to rest.

It is increased freely by cuttings, and flowers in August and September.

Fig. 1. represents the insertion of the stamens, and the ovary; 2. is a transverse section of the latter, shewing the placentation, and the parietal hairs.

HIBISCUS Moscheutos.

Musk Hibiscus.

MONADELPHIA *POLYANDRIA.*

Nat. ord. MALVACEÆ. (MALLOWWORTS, *Vegetable Kingdom, p.* 368.)
HIBISCUS, L.

§ Abelmoschus. *DC.*

H. *Moscheutos;* foliis ovatis acuminatis serratis sæpe 3-lobis subtùs albo-tomentosis supra pubescenti-scabris, pedunculis unifloris petiolisque sæpe connatis. *Torrey & Gray, Fl. Am. Sept. p.* 237.

H. Moscheutos. *Linn. Cav. diss. III. t.* 65, *f.* 1 *& 2, Bot. Mag. t.* 882.

H. palustris. *Linn. according to Torrey & Gray.*

This noble plant, although one of the oldest inhabitants of our gardens, is seldom seen in cultivation. According to the learned authors of the Flora of North America, it inhabits the borders of marshes, particularly near the salt water, in Canada, and throughout the United States, flowering in the months of August and September.

They describe it thus:—Stem, three to five feet high, minutely tomentose. Leaves about five inches long, and three wide, rather obtuse at the base, with a long acumination, often with three short abruptly acuminate lobes, velvety-tomentose beneath. Peduncles axillary, two inches long, articulated a little below the flower, often coalescing with the petiole to a considerable distance above the base. Flowers as large as in the common Hollyhock, rose-colour, or sometimes nearly white, crimson at the centre. Petals obovate, retuse. Stamineal column one-third the length of the petals—Styles exserted. Capsule as large as in *H. Syriacus.*

They also state, that from numerous observations, they are convinced that H. Moscheutos and H. palustris are not distinct species, for it is not uncommon to find the peduncles and petioles both distinct and united on the same speci-

men, and this is the main difference between them. If this be so, we may also ask in what respects the *Hibiscus grandiflorus* of Michaux differs. We find nothing satisfactory on this point, except that the leaves are tomentose on the upper surface, instead of being merely pubescent.

The accompanying figure was taken from plants raised in the garden of the Horticultural Society, from seeds supplied by James Osborne, Esq., of New York. They were admirably managed by Mr. Gordon, to whom we are indebted for the following memorandum :—

"This splendid hardy herbaceous plant thrives best in a mixture of sandy loam and peat, to which should be added a small portion of well decomposed cow-dung. It grows from three to four feet in height, and flowers in the months of September and October.

"Although quite hardy, it is very impatient of wet when in a state of rest, and is best treated as a pot plant in the following way :—About the middle of March repot the plant, and place it in a close damp pit where there is a little heat to start it ; and as the plant produces many young shoots, select five or six of the strongest, and remove all the others, as they are produced ; afterwards water freely, and keep the plant in rather a moist pit during the summer. It will then flower freely during the autumn, which, if planted out in the open border, it never does. When done flowering, withhold moisture first from the atmosphere of the pit, and afterwards gradually from the roots, until the soil in the pot becomes quite dry, when the pot may be stowed away in a dry cellar, or similar place, until the following March, when it will be ready for starting again.

CALANTHE curculigoides.

Yellow-spiked Calanthe.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

***CALANTHE**, supra vol.* 1844, *t.* 37.

C. *curculigoides* (Wall. Cat. no. 7340. Lindl. Gen. & Sp. Orch. no. 13.); foliis oblongis glabris scapo crasso duplo longioribus, racemo denso cylindraceo glabro, bracteis membranaceis deflexis cito deciduis, labello hastato lobis lateralibus brevibus obtusis intermedio lanceolato cis apicem dilatato, calcare uncinato.

A *bright* yellow Calanthe is an unexpected novelty; and this species, which was previously known only from bad dried specimens, proves to be one of the handsomest of its race. The flowers have a firm waxy texture, and do not wither so soon as those of some species; they are much yellower and finer than in C. densiflora; all their beauty fades, however, in drying, when the species becomes one of the least attractive. The specimen now figured, was the best we have seen in a living state: but it is nothing compared to what it will become. We have now before us wild specimens, collected by the late Mr. Griffith at Malacca, with ten inches of flowers, and a further part of the inflorescence is lost. It is not too much to say that the flowering spike of C. curculigoides may be expected to be a foot long.

The species has been found exclusively in the Straits of Malacca, whence Messrs. Loddiges received it. It flowered at Hackney, in November, 1845, and may be expected to require more heat than some of the sorts.

Fig. 1. represents the lip, column, and spur; the remarkable hook of the latter is one of the characteristic marks of the species.

ERYTHRINA Bidwillii.

Mr. Bidwill's Erythrina.

GARDEN HYBRID.

"This plant was sent me at Spofforth, by Mr. Bidwill, from Sydney. I am not sure whether it was raised by himself, or by Mr. Macleay. It is a hybrid production, from E. herbacea, impregnated by E. Cristagalli, and is remarkable as being, I believe, the only certain hybrid papilionaceous plant we have. It is a very beautiful plant of intermediate habits. Its vigorous shoots die down to the root after flowering, and have leaves of an intermediate form approaching in colour and gloss rather to those of the Carolina E. herbacea. The flowers are of intermediate size and colour; but like those of E. Cristagalli, borne by threes at the axils of the leaves as well as on a terminal spike, while those of E. herbacea are borne on a leafless spike proceeding from the root. I hope to multiply it by cuttings, and consider it to be a great acquisition. The figure necessarily gives a very inadequate representation of an inflorescence too large for the plate; and the terminal spike and upper part of the shoot had failed, from an accidental circumstance, in the specimen sent.—W. H."

For the foregoing memorandum, we are indebted to the kindness of the Hon. and Very Rev. the Dean of Manchester; and we cannot do better than fill a vacant space with the following extract, from a most valuable paper on hybrids, which the same gentleman has published in the Journal of the Horticultural Society, Vol. 2, Part 1 :—

"It is now forty years since I began experiments on this subject, which have been, not an employment, but an occasional source of amusement. My original assertion was, that the genera of plants (rectifying in the limitations and definitions thereof by botanists such things as shall appear to require rectification) represent the several created types of

vegetables; that such created types cannot properly amalgamate; and that, if a monster is at any time produced between them seminally, it cannot be seminally reproduced; that the species of botanists and the permanent local varieties are not essentially different in their nature, but are variations induced by causes more or less remote in the period of their operation, though the features of their diversity may be severally more or less important, and that they differ from accidental varieties in the permanent habit of similar reproduction which they have acquired from soil and climate, and that often in a long succession of ages. Those points appear to me now completely established, excepting that we cannot prove that even the genera did not branch out from higher types, or in fact that the tribes or orders were not the original genera, or kinds. In some genera we find that all the species are capable of breeding together and producing a fertile offspring: in Hippeastrum that they even prefer breeding with each other; in some genera that many species will cross together, and some have as yet refused to cross; in some, that the cross-bred plants are abundantly fertile; in some obstinately sterile; in some individuals capable of fertilization by the pollen of another, and not by its own; in some cases that two individuals will breed freely with a third, and not with each other.

"To what results do these facts lead us? The promiscuous blending of the species of any one genus proves that the sterility or impediment to intermixture does not depend upon any original created diversity of species—*i.e.*, that the thing called a species by botanists is not the created type; and, if the fertility does not depend upon that, the various results must depend upon the want of equal affinity amongst the several species of each respective genus—that is to say, on a wider departure from the common type in the several varieties of one genus than in those of another. We cannot suppose any thing so preposterous as that the Almighty would have created so many species of a genus, with permission, when approached together by the hand of man, to confound their generations, and so many others under a peremptory prohibition to do so. Therefore, if by a genus we mean anything definite, anything that has a real and natural character, and not merely a fanciful and capricious denomination, whatever

be the nature of the individuality which absolutely and essentially separates one genus from the rest of the creation, must also exist in every other genus ; so that, if the species of any one genus are variations generated from one original type, the species of every genus must respectively have descended from a peculiar type ; otherwise it would be apparent that the same thing is not meant when the words genus and species are used in the one case and in the other, and that the application of the words is vague and unscientific. If I have shewn that the species of one genus are convertible, and therefore of one origin, I have shewn that every genus must have had one original type, unless the genus which I bring in evidence shall appear to be in truth a division of an inferior grade, and not deserving of the name of a genus. Let us, therefore, inquire how the fact stands. It so happens, as if expressly to prevent the possibility of any doubt on that point, that the genus in which I have lately produced the proof of the most marvellous convertibility, is not only a valid genus, but embraces greater structural differences than any genus amongst the seven or eight thousand that have been defined—I mean the genus Narcissus, which, on account of those diversities, had been subdivided into a number of genera; which supposed genera have been found capable of breeding together and re-crossing, so that not only intermediate forms can be originated, but one even of the supposed genera can be obtained in two or three generations from the capsule of another. This cannot stand as an isolated fact. It holds out a warning to all botanists, that on closer investigation it will be found, not merely that the genera of plants duly modified are the descendants of individuals which have branched into variations, but that a great portion of the seven or eight thousand are not even real individual types, but sections of a genus or kind embracing a certain class of variations, which have peculiar affinities to each other, and which in many, perhaps in most, cases cannot now intermix with plants of another section."

New Garden Plants.

ERIOPSIS BILOBA.

This new genus belongs to the Maxillarids, among Vandeous Orchids, but has so much the habit of Eria, when not in flower, that it may be mistaken for it. It has large plaited leaves placed two or three together, upon the summit of a fleshy oblong stem, and it throws up from the base a long spike of gay orange-coloured blossoms. The history of its introduction is unknown. It has been flowered by J. J. Blandy, Esq., of Reading, who, in September last, favoured us with a specimen; it had been acquired by him among the many rare species forming the late Mr. Barker's collection, which Mr. Blandy purchased, and is possibly some western plant. We do not, however, find any trace of it in books, or among our own unarranged collections. In a short time we shall give a figure of it, and in the meanwhile propose the following as its technical character.

ERIOPSIS (Orchidaceæ, Vandeæ-Maxillaridæ). Caules succulenti, apice tantum foliati. Racemus radicalis multiflorus. Bracteæ minimæ. Flores explanati: laciniis subæqualibus oblongis obtusis, mento brevi obtuso. Labellum anticum, concavum, trilobum, disco lamellatum, c. basi productâ columnæ articulatum. Columna semiteres, clavata, aptera; anthera oblonga, subunilocularis; pollinia 4, inæqualia, per paria filis 2 elasticis affixa; glandula submembranacea quadrata.

IRIS setosa.

Bristle-tipped Iris.

TRIANDRIA *MONOGYNIA.*

Nat. ord. IRIDACEÆ. (IRIDS, *Vegetable Kingdom, p.* 159.)

IRIS, L.

I. ***setosa*** (Pall. Dietr. spec. pl. 1. p. 448.) ; imberbis ; rhizomate subrepente, foliis subensiformibus caule teretiusculo ramoso folioso sub-brevioribus, spathis subacutis margine scariosis pedunculum adæquantibus, perigonii tubo ovario trigono breviore laciniis exterioribus sub-orbiculatis lato-unguiculatis interioribus brevissimis cuneiformibus truncatis cuspidatis, capsula subcoriacea oblonga subtrigona apice dehiscente, seminibus oblongis carinatis. *Fischer Index V. p.* 37.

I. brachycuspis } *Fisch. in litt.*
I. cuspidata }

I. brevicuspis, *Schult. Mant. I. in R. & S. vol. I. p.* 306.

This very pretty plant is said, by Dr. Fischer, to inhabit the northern part of Eastern Siberia, along the Lena, about Schigansk and Jakutzk, in Kamtchatka, Unalaschka, Escholtz's Bay, Chamisso's Island, &c. Its root is said to be poisonous, but we know not on what authority.

It is a very hardy herbaceous species, growing from one to two feet in height, if planted in any good rich garden soil, and freely supplied with water during the growing season ; but afterwards the plants should be kept rather dry, as they are very impatient of damp or wet during the winter months.

It is best increased by seeds treated in the usual way, but the young plants will not flower before the second year.

It was raised in the garden of the Horticultural Society, from seeds received from Dr. Fischer, and flowered in May last, for the first time.

New Garden Plants.

EPIDENDRUM PYRIFORME.

E. *pyriforme* (Encyclium : labello tripartito : lobo medio rotundato) pseudobulbis obpyriformibus aggregatis diphyllis, foliis coriaceis lanceolatis acutis scapo subbifloro longioribus, sepalis petalisque lanceolatis acutis, labelli lobis lateralibus obtusis integerrimis intermedio subrotundo glabro picto callis 2 maximis apice subliberis in unguem.

A very pretty little species, imported from Cuba by Messrs. Loddiges, with whom it flowered the other day. The leaves are about four inches long, on little pseudo-bulbs, which look like inverted pears. Notwithstanding its diminutive stature, the flowers are fully $2\frac{1}{2}$ inches in diameter, with reddish yellow sepals and petals, and a pale straw-coloured lip veined with crimson.

EPIDENDRUM PLICATUM.

E. *plicatum* (Encyclium : labello tripartito : lobo medio acuto) pseudobulbis ovatis diphyllis, foliis ensiformibus acutis racemo brevioribus, sepalis petalisque lanceolatis cuspidato-acuminatis, labelli lobis lateralibus oblongo-lanceolatis undulatis basi elevatovenosis intermedio cordato transverso plicato crenato cuspidato, callis 2 maximis carinatis acutis apice subliberis in unguem.

This also is a Cuba species from Messrs. Loddiges, with whom it flowered in January. It takes rank with E. phœniceum, and Hanburii, but is quite different in the form of its flowers. The plaited crenelled lip, with a long cusp, is quite peculiar ; it is of a rich crimson, as are the petals *at the back ;* but the sepals and inside of the petals are green, the former just warmed and the latter richly spotted with crimson.

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LUPINUS Ehrenbergii.

Ehrenberg's Lupin.

DIADELPHIA *DECANDRIA*.

Nat. ord. FABACEÆ. (LEGUMINOUS PLANTS, *Vegetable Kingdom, p.* 544.)

LUPINUS, L.

L. *Ehrenbergii;* canescenti-pubescens et patentim pilosus; foliolis 5-7-nis oblongo-lanceolatis basi attenuatis acutiusculis mucronatis petiolo dimidio longioribus pagina supra subglabris aut utrinque subadpresso-pilosis, stipulis infima parte sæpe usque ad medium adnatis ceterum liberis angustis subulato-acuminatis petiolo multoties brevioribus, racemo elongato multifloro densifloro, bracteis citius deciduis fere subulatis dum adsunt calycem cum pedicello æquantibus et primum alabastrum totum superantibus, calycis ebracteolati bilabiati labio supero apice acute bidentato vix majore quam inferum angustius acutum dein curvato-deflexum legumine hirsuto utrinque oblique acuminato toruloso sub-8-spermo. *Schlechtendahl in Linnæa, 12. 33.*

We refer this to L. Ehrenbergii, upon the authority of Mr. Bentham; for it does not entirely agree with the description of the German Botanist.

It is a very pretty half-hardy biennial, growing from two to three feet in height, if planted in any good rich garden soil. It is well suited for cultivation in the open borders, as a summer annual. The seed should be sown on a little heat in February, and afterwards treated as half-hardy annuals are.

It flowers during the latter part of summer and autumn, and was raised in February, 1846, from seeds received from Mr. Hartweg, said to have been collected on the mountains near Anganguco, in Mexico.

Fig. 1. represents the calyx and keel; 2. a pod; 3. a ripe seed, which is brown spotted with black.

Miss Drake del.

G. Barnard sc.

CONVOLVULUS italicus.

The Italian Bindweed.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CONVOLVULACEÆ. (BINDWEEDS. *Vegetable Kingdom, p.* 630.)
CONVOLVULUS.—Bot. Reg. vol. 2, *fol.* 133.

C. *italicus*; caule foliisque hirsutis, foliis radicalibus cordatis rugosis repandis dentatis caulinis palmato-pedatis incisis, pedunculis bifloris folio longioribus. *Gussone Flora Sicula,* 1. 237.

C. italicus. *Romer & Sch. Syst. veg.* 4. 266.

C. hirsutus. *Tenore, fl. nap.* 1. 60. *t.* 15.

According to Mr. Choisy this beautiful twiner is a mere variety of *Convolvulus althæoides:* but we agree with Prof. Gussone, and others, in regarding it as truly distinct. Its leaves have no trace of the silkiness so characteristic of that species, but are deep green, and covered with very coarse pubescence; its flowers are much larger, and its calyx is guarded by long bristle-like hairs.

It appears to be very common in the South of Europe, and in the North of Africa. We have it from both Egypt and Algiers. In those countries it decorates hedgerows, vineyards, and waste places, with its charming blossoms, in April and May. With us, however, it is an ornament of autumn.

Our drawing was made in September, 1846, in the garden of the Horticultural Society, where it had been received from Messrs. Lowe and Co., of Clapton, under the name of C. Sibthorpii, a very different species.

It is a hardy climbing perennial, which grows freely in any good garden soil, and dry situation. It is best suited for planting among stones, on a rockwork, or at the bottom of a bush or hedge, where it can scramble over the outer twigs,

and where its roots are perfectly dry during winter, otherwise it is destroyed by the wet or damp of our cold season.

It is a true perennial, and easily increased by the roots; but it may be treated as an annual, since it flowers freely the first season from seeds.

DEUTZIA staminea.

Broad-stamened Deutzia.

DECANDRIA *DI-TETRAGYNIA.*

Nat. ord. PHILADELPHACEÆ. (SYRINGAS. *Vegetable Kingdom, p.* 753.)
DEUTZIA.—Botanical Register, vol. 20. *fol.* 1718.

D. *staminea;* ramis junioribus stellato-tomentosis senioribus glabris, foliis ovatis v. ovato-lanceolatis serrulatis subtus albo-tomentosis, cymis trichotomis, calycibus tomentosis, petalis oblongis obtusis, filamentis glabris latis 3-fidis, antheris pilosis, stylis glabris.

D. staminea. *R. Brown in Wallich Pl. as. rar.* 2. 82. *t.* 191. *Walpers Repertorium,* 2. 152.

A small hardy deciduous shrub, which grows freely in any good common garden soil, and flowers abundantly about the end of May, or beginning of June. It is easily increased by cuttings of the half ripened slender young shoots, put in sand, and kept in a close frame.

It was raised in the garden of the Horticultural Society in 1841, from seeds presented by Dr. Royle, from the north of India, of the very high mountains of which it is a native. It was originally found in Kamaon, by Mr. Blinkworth.

Its flowers are sweet-scented, and the plant, when in bloom, extremely pretty: but its leaves are too grey to render it ornamental when out of blossom.

The accompanying drawing was made in the garden of the Horticultural Society in May, 1846.

Fig. 1. represents a magnified view of a flower divided perpendicularly.

PENTSTEMON miniatus.

Vermilion Pentstemon.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARIACEÆ. (FIGWORTS. *Vegetable Kingdom, p.* 681.)
PENTSTEMON.—Bot. Reg. vol. 13. *fol.* 1121.

SECTION II. Cepocosmus, *Benth.*

P. *miniatus ;* suffrutescens, glaucus, minutissimè pubescens, foliis ovatis brevissime petiolatis basi rotundatis radicalibus in petiolum angustatis, racemo laxo secundo paucifloro, pedunculis bifloris, calyce glanduloso-piloso laciniis acuminatis immarginatis, corollæ clavatæ parcè glanduloso-pilosæ laciniis subtriangularibus ciliatis, antheris glaberrimis.

This very pretty little plant is not to be found in Mr. Bentham's recent enumeration of the species in the 10th volume of DeCandolle's Prodromus. Its nearest allies are P. *imberbis* and *lanceolatus*, both with very long narrow leaves, and we believe at present unknown to our gardens. The vermilion coloured flowers are particularly brilliant.

It has been found to be a half-shrubby perennial, which is nearly hardy, requiring the same kind of treatment as P. *gentianoides* and P. *atropurpureum.* Like most of the Mexican species, it grows freely in the open border during summer and autumn, if planted in a soil composed of sandy loam, and rotten dung, or leaf-mould.

It is easily increased by seeds, or by cuttings, in the autumn or spring, and only requires the protection of the cold pit, or frame, during winter.

The plant was raised in the garden of the Horticultural Society, from seeds received from Frederick Scheer, Esq., who obtained them from the north of Mexico. Our drawing was made in July last.

Fig. 1. represents a stamen and anthers.

Miss Drake del.

Pubd by T. Ridgway 169 Piccadilly March 1847.

G. Barclay sc

PRIMULA Munroi.

Captain Munro's Primrose.

PENTANDRIA *MONOGYNIA.*

Nat. ord. PRIMULACEÆ. (PRIMWORTS. *Vegetable Kingdom, p.* 644.)
PRIMULA.—Botanical Register, 1846. *t.* 31.

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§ Armerina, *Lindl. in Bot. Reg.* 1846. *t.* 31.

P. *Munroi;* bulbosa, foliis longè petiolatis subcordatis obtusis v. emarginatis leviter repandis glabris, scapo elatiore 5-7-floro, pedicellis involucro deorsum producto longioribus, calyce oblongo prismatico basi angustato apice brevissimè 5-dentato corollæ tubo æquali, corollæ lobis subrotundis semibifidis.

In many respects this is strikingly like P. involucrata, and it may be a mere variety of that species. But if the distinctions admitted by botanists among the European so-called species, are valid, then must this be regarded as essentially different. It is a yellower green; it is much larger; its leaves are slightly cordate, and extremely blunt; its flowers are twice as large; and the calyx (fig. 1) is of quite a different form. Instead of being taper, it is prismatical; instead of being contracted above the base, and then bulging out, it is gradually narrowed into the pedicel; and instead of being shorter than the tube of the corolla, it is as long; its teeth, too, are much shorter than those of P. involucrata.

Like the latter, it is a charming little alpine perennial, which grows freely in a mixture of loam, sandy peat, and leaf-mould, and flowers from March to May, in either a cold pit, or the open border.

It is easily increased by dividing the old plant in the spring, when it first commences growing, and is well suited for growing on rockwork; but it requires a moist shady situation in summer, and to be kept quite dry during winter, otherwise it soon perishes from the effects of damp. The flowers are deliciously fragrant.

It was raised in the garden of the Horticultural Society, from seeds presented by Capt. Wm. Munro, in April, 1845, and was stated to have been collected at an elevation of 11,500 feet, on the mountains of the north of India, growing in the neighbourhood of water.

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CROCI.

Crocuses.

TRIANDRIA *MONOGYNIA.*

Nat. ord. IRIDACEÆ.

CROCUS. Bot. Reg. 1843. *fol.* 21.

F. 1. C. *Gargaricus* (Bot. Mag. 3866. f. 2.); C. *aureus* (Clarke's Travels, 1812); c. tun. fol. ext. fibris superne subtiliter reticulatis inferne parallelis prope basim affixâ dudum persistente demum (post annos in Asiâ quatuor) cribrosâ, interioribus in ipso vertice inconspicuis, basi vaginaceâ non aut vix persistente, scapo nudo, spathâ ebracteatâ, limbo brevi aureo sub-aureo vel citrino estriato, petalis obtusis, sepalis acutioribus longioribus, fauce et filamentis lævibus, antheris $\frac{1}{4}$ unc. longis inferne latioribus, stigmatibus indivisis dilatato-fimbriatis, foliis 4-5 sæpe hysteranthiis. *Flore verno. Ex monte Gargaro.*

F. 2. C. *reticulatus,* v. *albicans* (Bot. Reg. 1841. M. p. 83.); C. *neglectus* (Nordmann MS.); perianthio albo, sepalis extus purpurâ striatis, rariùs suffusis. Colore et striis violaceis interdum rufescentibus aut fuscescentibus variat. Hab. desertis steppes dictis prope Bucharest hodiernam, prope Odessam, Hungariæ Banatum, Podoliam meridionalem intra Baltim et Jaorlik et circa Sawran, et Caucasum.

F. 3. C. *vallicola* (supra, 1845. M. p. 7.); c. tum præcipuâ tenuissimè membranaceâ fibris parallelis superne confluentibus, interiore in vertice tenui membranaceâ, scapo involucrato, spathâ ebracteatâ, limbo acuto albo maculis binis luteis in laciniæ cujusque fauce, antheris albis stigmata pallida apice plerumque bifida subæquantibus, foliis hysteranthiis. *Flore autumnali. Ex Alpibus Trapezunticis.*

F. 4. C. *cancellatus* (Bot. Mag. 1841. 3864. p. 2. Nobis 1843. M. p. 30. Ib. 1845. M. p. 81.).

Var. 2. *margaritaceus* (Bot. Reg. 1846. M. 711); limbo ultra sesquiunciali subalbo venis omnibus intùs pallidè cœrulescentibus extus inferne violaceo striato.

F. 4.* Tunica foliacea exterior, et vaginaceæ basis persistens. *Ex radicibus montis Delphi in Eubœâ.*

F. 5. var. 3. *Mazziaricus;* subvar. *estriatus. Ex Epidauro.* Habitat etiam Leucadem.

F. 6. var. 3. *Mazziaricus;* subvar. *striatus.* Ex montibus Cephallensibus. Variat. flore ultra sesquiunciali, pulcherrimè extus striato ibi et in Leucade.

F. 7. C. *Hadriaticus;* var. *Saundersianus,* 1845. M. 77.

F. 8, 9. var. *Chrysobelonicus;* ib. *Vix diversa est. Variant flore non striato.*

F. 8.* Tunica foliacea exterior apiculata; t. vaginacea interior truncata.

F. 10. C. *Boryanus* (Gay. Bory S. Vinc.); C. *Ionicus* (nobis ib. 75); C. *Veneris* (Tappeiner); C. *Caspius* (Fischer); c. tun. lævibus membranaceis, vag. int. basi demum parallelo-lacerâ, foliaceâ exteriore infra vel circa med. c. affixa, scapo spathâ bracteâque æqualibus, tubo longiùs breviùs exserto limbo colore florem lactis simulante basi intus aurantiacâ extus sæpe violaceo striato, fauce lævi, filamentis luteis pubescentibus, antheris albis, stylo saturatè croceo vel subcoccineo stigmatibus multifidis, foliis florem autumnalem præcurrentibus angustis, capsulâ et seminibus parvulis.——Hab. insulas Ionicos, Peloponesum, Cyprum, viciniam urbis Zeitun, et mari Caspii. W. H.

Crocus Gargaricus is nearly allied to the cloth of gold C., but it differs in the bulb-coats, especially in the absence of the hard persistent starry base to the vaginaceous coat, and

the limb being unstreaked, and its flowers different in form, rising often before the leaf. All those I have had from Gargarus, and from Angora, are deep golden; but most of Dr. Clarke and Yalden's dry specimens, were lemon-coloured. —C. reticulatus, v. albicans, is old Parkinson's cloth of silver Crocus, a native of the dry steppes, and probably lost by too much wet since his time.

C. vallicola, f. 3, comes from the hollow elevated vallies near the summit of the Alps of Trebizond, near Stauros, where it flowers in September, where the snow does not melt till June. C. cancellatus, fig. 4, is a beautiful and very variable autumnal crocus. It was found with purple flowers by Kotschy, on Mt. Taurus, behind Tarsus, near the lead mines, and I have specimens from thence, also, of a very pale colour. From Mt. Delphi, in Negropont, I obtained the var. f. 4, which is similar to that I called Naupliensis. The var. Mazziaricus was first discovered by Signor Mazziari, white, with a yellow throat, on a low hill, Phaneromeni, in St. Maura. I found it more plentiful in Megaoros in that island, and on Mt. Rhoodi and Mt. Enos, in Cephalonia, at the height of 3000 feet and upwards, and I find no two exactly similar; the ground being always white with a yellow throat, the outside often more or less streaked with purple lines, in some very richly. The seeds are large.

C. Hadriaticus, f. 7, is from Albania, near Janina, where it flowers in the autumn, and beginning of the winter. At Spofforth, it flowered at the end of September, and the very beginning of October, in 1846, which those, f. 8 and 9, from St. Maura, did not do. The difference between them is not considerable. In both countries there is an unstreaked variety. The plant has not been found elsewhere, except in the isles of Scorpio and Meganissi, and is very scarce in Chrysobeloni, and confined to a very small space. It has a truncate fragrant style.—C. Boryanus was so insufficiently described by Gay and Bory, that it could not be identified from their descriptions. The most striking feature, the milk-white anthers, was overlooked, and I found the only mode of identifying it was to send a person to Navarino, to seek the plant where Bory found it. I am now able to state, that C. Ionicus, and C. Veneris of Tappeiner, are one with Boryanus. In Corfu, the plant is poorer, and has much smaller flowers; it improves in St. Maura, but those from the red earth of the Morea are much more vigorous; and I have it from the neighbourhood of Coron, with the limb above two inches long, while in the Corfu plant it scarcely exceeds one. It was found near Navarino, Modon, Coron, on Mt. Evan, Mt. Ithome, and the lower hills of Taygetus, and near Zeitun, and on Mt. Scopo, in Zante. The collector of the Unio, found it on Mt. Enos, I conclude near the base towards the sea. I did not see it in Cephalonia.—W. H.

Miss Drake del

GONGORA bufonia ; *var*. leucochila.

White-lipped, toad-skinned Gongora.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § VANDEÆ—MAXILLARIDÆ. (ORCHIDS. *Vegetable Kingdom, p.* 173.)

GONGORA.—Bot. Reg. vol. 19. *fol.* 1616.

G. *bufonia* (Lindl. in Bot. Reg. 1841. t. 2.); hypochili convex aristis longiore cornubus lateralibus papillæformibus, epichilio acuto a latere subtriangulari.

Var. *leucochila ;* floribus pallide purpurascentibus labello candido apice fulvo.

We have had this drawing in our portfolio since April, 1844, when a specimen was communicated by S. Rucker, Esq. It is no doubt a pale variety of G. bufonia, of the original spotted form of which a figure will be found at fol. 2 of our volume for 1841.

The cultivation of this genus has become so generally understood, and its grotesque forms so familiar, that we believe the most acceptable service we can now render our readers, is to point out in what way the numerous varieties may be reduced to their species. With this view the following memoranda have been prepared :—

The best marks of distinction reside in the form of the little horns which stand right and left of the base of the lip. These are long and enlarged at their end, in some species; small, and resembling a mere callosity, in others; and missing in another. Attention to them will render further differences more intelligible.

I. *Horns of the base of the lip long, and enlarged at the point.*

1. G. *atropurpurea.* In this, which is now one of the commonest species, in addition to the deep claret purple of the flowers, the base of the lip is very much narrowed, and the lateral horns are as long as its stalk ; hence it

was stated, by Sir W. Hooker, to have four horns, which is correct if the bristles are included.

2. G. *maculata*. In this species, the horns are short and thick, and placed so much at right angles to the lip, as to give it a heart-shaped appearance. It never has the wine-coloured flowers of the last; but the flowers are in all cases more or less yellow, and generally gaily speckled with cinnamon brown. G. *fulva* of this work, t. 51, 1839, is only one of its numerous varieties.

II. *Horns of the base of the lip only little round callosities.*

3. G. *nigrita*. With the colour of G. atropurpurea, but still deeper, this has quite a different lip, not slender at the base, but rounded like G. maculata, and its horns are quite small; the upper part of its lip is singularly slender and bristle-pointed.

4. G. *bufonia*. Here, on the contrary, not only is the deep wine-coloured hue missing, but the lower half of the lip is much larger, and the upper half far broader. All the pale purple Gongoras, and the white kind, seem to be referable to this species.

III. *Horns of the base of the lip entirely absent.*

5. G. *truncata*. Perfectly distinct from all the preceding in the form of its flower buds, which resemble a bean. The bristles, usually so conspicuous, are also almost absent. It looks very like the commencement of a change from Gongora to such a genus as Acropera.

* Uncertain species.

†6. G. *Galeottiana*. The published character of this conveys no information which enables us even to judge to what species it is allied. Its country (Mexico) leads to the supposition that it may be G. truncata.

†7. G. *quinquenervis*. This is also indeterminable. It is said to have yellowish purple flowers, and comes from Peru. We have here nothing that can be supposed to belong to it. The only Peruvian species, yet known, is G. maculata, var. tricolor (B. Reg. 1844, misc. 30), but that plant has no purple in its flowers.

Miss Drake del.

ERIOPSIS biloba.

Two-lobed Eriops.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § VANDEÆ—MAXILLARIDÆ. (ORCHIDS, *Vegetable Kingdom, p.* 181.)

ERIOPSIS, Lindl.—*Caules* succulenti, apice tantum foliati. *Racemus* radicalis multiflorus. *Bracteæ* minimæ. *Flores* explanati: laciniis subæqualibus oblongis obtusis, mento brevi obtuso. *Labellum* anticum, concavum, trilobum, disco lamellatum, c. basi productâ columnæ articulatum. *Columna* semiteres, clavata, aptera; *anthera* oblonga, subunilocularis; *pollinia* 4, inæqualia, per paria filis 2 elasticis affixa; *glandula* submembranacea quadrata.—*Lindl. in Bot. Reg. sub fol.* 9. 1847.

ERIOPSIS *biloba,* Lindl. supra.

"This new genus belongs to the Maxillarids, among Vandeous Orchids, but has so much the habit of an Eria, when not in flower, that it may be mistaken for it. It has large plaited leaves placed two or three together, upon the summit of a fleshy oblong stem, and it throws up from the base a long spike of gay orange-coloured blossoms. The history of its introduction is unknown. It has been flowered by J. J. Blandy, Esq., of Reading, who, in September last, favoured us with a specimen; it had been acquired by him among the many rare species forming the late Mr. Barker's collection, which Mr. Blandy purchased, and is possibly some western plant. We do not, however, find any trace of it in books, or among our own unarranged collections."

It was thus we spoke of this beautiful plant in February last. The present figure will serve to complete what is known of its history. Its genus is perfectly distinct, whether we regard the short chin or the almost quadrangular gland, or the peculiar lamellæ of the lip. Its nearest affinity is with the racemose Maxillarias, readily distinguished however by their crescent-shaped gland, and tubercular (not lamellated) lip with a long chin.

April, 1847.

Warrea has globose half-closed flowers, and a *linear caudicle.*

The plates found on the surface of the lip are peculiar to it. There is no middle plate, beyond a slightly elevated line; on each side of the middle line stands a short plate, truncated anteriorly; outside of these, on each side, is another much larger plate, rounded, with two teeth at the anterior base; and immediately before these stands another pair of fine teeth, just as is represented at fig. 1.

Fig. 2. represents the pollen-masses elevated above the gland by stretching their elastic threads forcibly. In a natural state, these pollen-masses are perfectly sessile on the gland.

New Garden Plant.

Sarcochilus *fuscoluteus*; foliis distichis coriaceis apice rotundatis obliquè bilobis, spicis densis conicis, sepalo dorsali petalisque angustioribus lanceolatis acutis lateralibus apice rotundatis c. labello omninò connatis, labelli trilobi apice scrotiformis laciniis lateralibus acutis erectis intermedio oblongo obtusissimo carnoso in discum cornuto dentibusque aliis validis in fundo.

Imported from Borneo by Mr. Lowe, and communicated by F. G. Cox, Esq. of Stockwell. I have only seen one perfect flower, which was bright yellow tipped with tawny, and nearly three-quarters of an inch across in the principal diameter. The flowers grow in close conical spikes. The leaves are about four inches long, and three-quarters broad.

AQUILEGIA jucunda.

Joyous Colombine.

POLYANDRIA *TRI-PENTA-GYNIA.*

Nat. ord. RANUNCULACEÆ. (CROWFOOTS, *Vegetable Kingdom, p.* 425.)
AQUILEGIA.—L.

A. *jucunda ;* calcaribus inde a basi præcrassâ valdè curvatis apice cephaloideis subhamatisque, labello arrecto supra rotundato multo brevioribus, pistillo superante stamina incipiente anthesi recto-parallela, fructu ovoideo basi umbilicato.—*Fisch. Meyer & Avé-Lallem. index sextus seminum.*

A. glandulosa, *Sweet's Flower Garden, ser. 2. t.* 55.

A. alpina, *Delessert ic. select.* 1. *t.* 48.

Dr. Fischer says that this plant stands intermediate as it were between the true A. *glandulosa* and A. *alpina.* "It differs from A. *glandulosa* not only in the points included in the specific character, but in the sepals being ovate, tapering to the point, and deep blue ; in the petals being roundish ovate (not truncate as in A. *alpina,* nor acute as in A. *glandulosa*) whitish, touching each other by their whole length ; in the anthers being narrowly oval, the carpels fewer (6-10), and the seeds thicker, with 5 imperfect longitudinal keels. Among the slighter marks by which it differs from A. *alpina* are the long peduncles, the spurs which are exactly those of A. *glandulosa,* the white petals, the yellow anthers, and more numerous carpels. It is found on the mountains of Siberia."

In gardens it is a fine hardy perennial, growing about a foot high, when planted in a compost composed of sandy loam and leaf-mould. It is well suited for rock-work, where it can be kept free from damp when in a state of repose, but freely supplied with moisture during the growing season, otherwise the plants dwindle away and never flower.

It is easily increased by seeds, or by dividing the old plants when in a dormant state, and flowers from June to August.

It was raised in the Garden of the Horticultural Society, from seeds received from Dr. Fischer.

It differs from the common A. *glandulosa* of the gardens in its much dwarfer habit, in the flowers being a much brighter blue, and in its very glaucous round foliage. It is very distinct from all the supposed varieties of A. *glandulosa*, especially from the Persian form, which is tall and has several flowers on the stem.

New Garden Plant.

Angræcum *virens;* foliis latis distichis . . . . . , labello subrotundo apice convoluto cuspidato lineâ in medio elevatâ acuminatâ latâ planâ, calcare horizontali acuminato recto ferè duplo longiore.

This is very like a small state of Angræcum eburneum, but Mr. Loddiges regards it as distinct; and in the flatness of the median ridge of the lip, in the smaller size of all the parts it seems to be distinguishable. It is, however, published from very imperfect materials, and chiefly with a view to draw attention to its locality, which is said to be Serampore; but whether it is really a native of the continent of India, or a plant received from the old Botanical Garden of that Settlement, as is more probable, I do not know.

Dendrobium (Dendrocoryne) *chrysotoxum;* pseudobulbis clavatis angustis multicostatis 2-4-foliis, foliis oblongis horizontalibus coriaceis, racemis lateralibus laxis gracilibus arcuatim decurvis pseudobulbis æqualibus, bracteâ basilari parvâ spathaceâ floralibus minimis herbaceis, sepalis petalisque explanatis oblongis obtusissimis planis his duplò latioribus, labello indiviso cucullato rotundato pubescente margine minutissime pectinato et fimbriato.

An importation from India by Messrs. Hendersons, of very great beauty. It belongs to the herd of Dendrobes, of which D. *densiflorum*, *Griffithii*, and *aggregatum* are representatives and it nearly approaches the latter; but it has an entirely different lip, most delicately and curiously broken up into innumerable minute fringed teeth.

ODONTOGLOSSUM Warneri ; *var.* purpuratum.

Mr. Warner's Tooth-tongue.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. § VANDEÆ—BRASSIDÆ. (ORCHIDS, *Vegetable Kingdom, p.* 181.)

ODONTOGLOSSUM.—Bot. Reg. 1839. *t.* 48.

Sect. XANTHOCHILUM, or Stained lipped species.

a. The ears of the column rounded, broader than long, or altogether absent.

O. *Warneri ;* pseudobulbis ovatis ancipitibus subangulatis apice elongatis diphyllis, foliis patulis lineari-lanceolatis racemo paucifloro brevioribus, bracteis minimis, sepalis ovalibus patentissimis, petalis paulò angustioribus obtusis ascendentibus, labelli trilobi plani laciniâ intermediâ cuneatâ bilobâ rotundatâ lateralibus subquadratis, tuberculo disci simplici, columnâ elongatâ apterâ.—*Lindl. in Bot. Reg.* 1845. *misc. p.* 54.

α. *sordidum ;* petalis sepalisque lutescentibus purpureo striatis.

β. *purpuratum ;* petalis sepalisque albis purpureo læto striatis.

The original of this dwarf species is no doubt a native of some part of the tropical regions of America, but we have not learned its exact history. It first appeared in public at a meeting in the Garden of the Horticultural Society, in May, 1845, when it was exhibited by Mr. C. B. Warner, whose name it bears. The present variety was obtained from Mexico by Messrs. Loddiges, whose No. 1449* it is. A healthy mass of it is very handsome, the yellow of the lip and purple stripes of the sepals and petals being deep and clear.

It is one of those plants which, although they may be called crop-eared, have not lost their auricular organs by any surgical process ; their ears have naturally disappeared, not leaving even a stump behind. The group of species with which it is associated exhibits indeed every gradation from fine well developed ears in O. *lacerum* to their total absence in O. Warneri. In the specimen now represented there was not more than five flowers in a raceme ; but when stronger, it will bear from seven to eight.

The original variety, although pretty, is by no means equal to that now represented, which flowered with Messrs. Loddiges in January, 1846. The former had the sepals and petals stained with pale dull yellow or buff, which destroyed their brilliancy: this, on the contrary, has the ground of the sepals and petals clear white.

New Garden Plants.

Acriopsis *densiflora*; pseudobulbis ovalibus, racemis multifloris cylindraceis pedicellis internodiis longioribus, labello pubescente panduriformi laciniâ media rotundatâ subemarginatâ lateralibus acutis: dente elevato fisso in medio, clinandrii cucullo integerrimo rotundato.

A very curious Orchidaceous plant, imported from Borneo by Mr. Lowe, and communicated by Mr. Conrad Loddiges. Unlike the other species, this has its flowers compactly arranged in racemes about two inches long. The former are small, but delicately marked with brown upon yellowish green, and the lip is rose-colour bordered with white.

Brassavola *retusa*; labello undulato cuneato *truncato* margine lævi.

Only known from a specimen sent to the Gardener's Chronicle, March 5, 1847, for a name, and purporting to come from Maracaybo. The form of the lip is quite unlike any other species; it is white, with a little green near the base.

CLEMATIS pedicellata.

Long-stalked Majorca Virgin's Bower.

POLYANDRIA *POLYGYNIA.*

Nat. ord. RANUNCULACEÆ. (CROWFOOTS, *Vegetable Kingdom, p.* 425.)

CLEMATIS.—L.

Section CHEIROPSIS. Stems climbing. Flowers solitary, with an involucre formed by the union of a pair of bracts below the flower. Petals none. Fruits with long feathery tails.

C. *pedicellata ;* foliis fasciculatis ovatis cordatis integris serratis trilobis ternatisque obtusis mucronulatis, involucro parvo a flore distante, sepalis rotundatis.

C. cirrhosa pedicellata, *DeCand. prod.* 1. 9.

The Majorca Virgin's-bowers consist, according to some writers, of several distinct species, which others, however, regard as mere varieties of each other. In the view of the former the species are four, namely :—

1. C. *cirrhosa ;* with broad ovate cordate entire or serrated leaves, having sharp-pointed or bristle-pointed segments ; and with a large involucre immediately under the flower.

2. C. *semitriloba* or *polymorpha ;* with broad ovate cordate serrated leaves, which are never entire, but generally three-lobed ; and a large involucre immediately under the flower.

3. C. *pedicellata ;* with broad ovate cordate serrated leaves, which are very obtuse, and often entire ; and a small involucre at a considerable distance from the flower.

4. C. *calycina* or *balearica ;* with deeply cut narrow leaves, and an urceolate involucre immediately beneath the flower.

On the other hand, Cambessédes, who studied them in the Balearic islands, came to the conclusion that they are all mere varieties of one common type. " In general," he says,

" when Cl. cirrhosa grows in the plains of Majorca, near Palma, Campos, Artà, Alcudia, Pollenza, its leaves are nearly entire, or slightly saw-toothed; but when it reaches the mountains of Esporlas, Valdemosa, &c. the leaves become gradually three-lobed, palmated, or almost digitate. I possess several specimens which I gathered on the top of Puig-major, twelve hundred yards above the sea, in which the leaves are not only palmate, but their segments are divided, nearly to the base, into narrow almost linear and toothed divisions."

When those who study these plants in their native places are unable to agree as to their distinctness, we, who know them only in cultivation, may be pardoned if, for the sake of convenience at least, we regard them as so many species. C. *pedicellata* does, in fact, seem very different from C. *cirrhosa*, if C. *semitriloba* does not; for its very blunt leaves, its small involucre at a considerable distance from the flower, and the small size of the flower itself, are remarkable. We have it wild from Sardinia under the name of C. balearica, with its garden peculiarities.

It is a tolerably hardy climbing shrub, which is only injured by such winters as that of 1837-8, and well suited for training on low walls or trellis, as it is not a very rapid growing kind. It thrives in any good loamy soil, is increased by cuttings of the half-ripened wood, treated in the usual way, and flowers twice during the year, namely, in spring and autumn.

It was presented to the Horticultural Society several years ago, by Messrs. Lee, of the Hammersmith Nursery.

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NARCISSI.

Narcissuses.

HEXANDRIA *MONOGYNIA*.

Nat. ord. AMARYLLIDACEÆ. § HERMIONE. (AMARYLLIDS, *Vegetable Kingdom, p.* 143.)

NARCISSUS.—Bot. Reg. 2. 123.

Fig. 1. *Narcissus deficiens;* [nisi forsan N. obsoletus, v. deficiens], § Hermione. Bulbo parvulo ovato, foliis 1-2 viridibus erectis gracilibus teretibus synanthiis vel sæpius hysteranthiis, scapo unifloro folio conformi, spathâ marcescente pedunculum superante, germine viridi semiexcluso, tubo subcylindrico viridi sub-erecto vel paullum declinato semunciali, limbo patulo $\frac{5}{8}$ unc. longo albo basi intus lividè fuscescente, sepalis latioribus obtusis cum acumine, coronæ deficientis rudimento imperfecto lividè fuscescente sæpe dentibus sex minutis coronæ loco, antheris colore pallidè stramineo tribus exsertis tribus stylo profundiùs inclusis. Flore autumnali odoro. *Ex Leucade prope castellum Alexandri.*

Fig. 2. *N. juncifolius;* Requien; var. minor. Herb. Amar. § Queltia; p. 314. Bulbo parvulo, foliis viridibus gracilibus, scapo 1-3-floro, perianthio luteo, limbo coronâ longiore. Varietates sunt major, media, et minor. *In Galliâ meridionali.*

Fig. 3. *Hermione obsoleta?* Haworth; 2-flora, coronâ obsoletâ luteâ. Parkinson, "N. autumnalis medio obsoletus; the white autumn daffodil with a sullen crown?" Specimen siccum in herbario dom. G. Bentham. *Ex Tingide.*

Fig. 4. *Tapeinægle humilis, mihi.* Pancratium humile, *Cav.* Tapeinanthus, *Herb. Am. Ex specimine sicco accuratè delineata.*—W. H.

Narcissus, or Hermione deficiens, is an undescribed plant. It grows near fort Alexander, in Sta. Maura, where it passes for N. serotinus. I suspect that the plants found near Argostoli by the collector of the Unio, and those which are said by Bory to abound near Navarino, growing deep in the red earth, and called by them N. serotinus, will prove to be this plant. N. serotinus has linear leaves of a less bright green, the sepals more acute, and a short yellow crenulated cup, and has sometimes very odd knots on the scape, which Mr. Haworth, taking his view from coarse old engravings, mistook for articulations. They are oftener absent than

present, and are probably caused by the puncture of some insect. N. deficiens has bright green cylindrical leaves, like a small jonquil; the tube is oftener erect than declined, the sepals obtuse with a point, and rather larger than the petals, the whole limb white, with a livid brownish stain at the base of each segment, the cup so nearly obliterated that I cannot distinguish its rudiments without a magnifier; but there is an imperfect and often interrupted brown ridge, including the three sepaline anthers, which are not concealed in the tube; in some of the specimens only six diminutive teeth at the juncture of the sepals and petals. A Narcissus without a cup seems an anomaly, but f. 3 represents a dry specimen from Tangiers in Mr. Bentham's herbarium, which seems to me to be Parkinson's N. medio obsoletus, for it differs from a 3-flowered green jonquil of which I have a specimen from Tangiers with much slenderer segments, and a decidedly 6-cleft crown, and also from a specimen of Hermione elegans from Tangiers, the 7-flowered N. serotinus of Desfontaines, which has larger flowers with a very shallow yellow cup. I cannot however say that the N. deficiens agrees sufficiently either with Mr. Bentham's specimen or Parkinson's description to be united with the supposed N. obsoletus. There is a notice of an 8-flowered N. obliteratus from Mogadore, by Schlechtendal, which is perhaps N. elegans, or a variety nearly akin to it, with a failure of the cup. Narcissus deficiens very nearly meets the Pancratiform plants in Pancratium humile of Cavanilles, Tapeinægle, *mihi*, though perhaps when better known it will prove to be a Lapiedra. The rudiment of an imperfect cup or membrane is not perceptible to me in either without a magnifier—connecting the filaments in one, placed farther back in the other. The prolongation of the filaments in P. humile is the most conspicuous distinction.

N. juncifolius is a neat little plant, found in stony pastures near Avignon and Pont du Gard. There are three varieties, of which this is the smallest. The largest has sometimes three flowers in a scape.

An exact outline from a dry specimen of the Pancratium humile of Cavanilles, the humblest of Pancratiform plants, is added, the plant being imperfectly known. The cup is almost obsolete in it.— W. H.

CŒLOGYNE speciosa.

Showy Cœlogyne.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. § EPIDENDREÆ. (ORCHIDS, *Vegetable Kingdom, p.* 181.)

CŒLOGYNE.—Botanical Register, vol. 11. *fol.* 868.

C. *speciosa ;* pseudobulbis ovato-oblongis costatis monophyllis, foliis oblongo-lanceolatis 5-7-nerviis, pedunculis unifloris squamatis pseudobulbis parum longioribus, sepalis oblongis, petalis linearibus reflexis, labelli trilobi laciniis lateralibus anticè denticulatis intermediâ bilobâ rotundatâ cristis duabus muricatis crassis sub apice ipso labelli confluentibus tertiâ brevi tenui basilari interjectâ, columnæ margine latissimo apice truncato dentato.

C. speciosa, *Lindl. gen. & sp. Orch. p.* 39.

The species of Cœlogyne now figured was sent from Java to Messrs. Veitch of Exeter, by their collector, Mr. Thomas Lobb, and by them communicated, in October, 1846, as a free growing, free flowering plant.

It is certainly the *Chelonanthera speciosa* of Dr. Blume, notwithstanding his statement that his plant has only two crests upon the lip, and his reference to the *Angræcum nervosum* of Rumphius; for the figure given by the former author in his Tabellen has three crests, and it is clear that Rumphius's figure is intended for quite a different plant, with a terminal, not radical, inflorescence.

The pale tawny sepals and petals, and pitch-brown lip of this plant detract from its beauty, notwithstanding that they are relieved by a broad white column, and a pure white termination to the lip, and that its flowers are nearly four inches in diameter when fully expanded. They have, however, a very singular appearance, and if they are produced in greater numbers will be attractive so long as the white remains unchanged.

Dr. Blume found it on trees on Mount Salak, in Java.

Fig. 1. represents the lip of the natural size, seen from above. Its lateral crests are unlike any that have been before remarked in the genus, each consisting of a broad soft spongy flat *skinless* elevation, from whose surface various minute points rise up in abundance; near the point of the lip, however, they become confluent, and resume the skin which is usually found on such processes.

New Garden Plant.

Henfreya *scandens*.

Under the name of Dipteracanthus ? scandens this plant was exhibited by Mr. Glendinning of Turnham Green, at a meeting of the Horticultural Society, a week or two since, when it was awarded a Knightian medal. As a figure of it will be very soon published in this work, it is only necessary here to state that it is an Acanthad, forming a new and very distinct genus, which we would name after Arthur Henfrey, Esq. F.L.S. a gentleman already much distinguished for his correct acquaintance with Botany, especially Vegetable Anatomy. Its stigma separates it decisively from both Dipteracanthus and Strobilanthes, to which it has in other respects much apparent affinity. Till we give a more formal account of it, the following character will enable other botanists to recognize the genus.

Henfreya (Acanthacea e tribu Ruelliarum Dipteracanthæ affinis.) Scandens, racemis nudis multifloris. *Calyx* 5-partitus. *Corolla* infundibularis, bilabiata, laciniis subæqualibus. *Stamina* 4, antheris basi aristatis. *Ovarium* loculis dispermis. *Stigma* parvum, bilobum, obtusum, æquale. *Capsula* clavata, stipitata, apice tantum seminifera. *Semina* (immatura) circularia, immarginata, lævia.

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ECHITES Franciscea.

The River Francisco Echites.

PENTANDRIA *MONOGYNIA*.

Nat. ord. APOCYNACEÆ. (DOGBANES, *Vegetable Kingdom, p.* 599.)

ECHITES, P. Browne.—*Calyx* 5-partitus, lobis interne omnibus vel solum interioribus glandulosis aut squamatis. *Corolla* hypocraterimorpha vel infundibuliformis; tubo plus minus elongato, cylindrico vel basi cylindraceo et supra vel apice infundibuliformi, exappendiculato, intus supra staminum insertionem plerumque hispido; lobis æstivatione sinistrorsum convolutis. *Antheræ* ubi tubus corollæ latior fit insertæ, subsessiles, medio stigmati adhærentes, sagittatæ, lobis inferioribus polline destitutis. *Nectarium* e glandulis lobis calycis alternantibus liberis vel plus minusve connatis, nunc 2 vel 3 connatis aliis distinctis. *Ovaria* 2, nectario plerumque longiora, sæpius glabra, ovula 00. *Stylus* 1. *Stigma* capitatum, ovoideum vel pyramidato quinquegonum, basi membranâ integrâ vel lobatâ umbraculiformi reflexâ stipatum, apice simplex vel bilobum. *Folliculi* 2, elongati, cylindrici vel torulosi, coriacei. *Semina* lineari-oblonga, ventre carinata, superne comosa, albumine parco; embryone axili, cotyledonibus planis, facie adpressis, radiculâ superâ longioribus.——Frutices *vel* suffrutices *scandentes, rarius* herbæ suffrutescentes *erectæ; omnes speciebus dubiis exceptis* Americanæ; foliis *oppositis, integris,* ciliis *glandulosis interpetiolaribus, glandulisque interdum superne ad basim limbi;* cymis *axillaribus vel terminalibus, sæpius in racemum simplicem elongatis;* floribus *albis, flavis, roseis vel purpureis, sæpe fragrantibus.*—Alphonse DeCandolle Prodr. viii. 446.

Section 1. EUECHITES.

§ 2. Glands within the calyx numerous.

β. Stamens inserted near the top of the corolla.

E. ***Franciscea;*** ramis racemis foliisque puberulo-velutinis, foliis ovatis acutis mucronatis, racemis simplicibus axillaribus folio subbrevioribus, lobis calycinis triangulari-acuminatis pedicello duplò brevioribus externè pilosis tubo corollæ quadruplò brevioribus, corollâ glabrâ tubo infra mediam partem angustiore sursum infundibuliformi lobis longiore.—*Alph. DeCand. Prodr.* 8. 454.

A fine fragrant bothouse climber, of considerable beauty, the introduction of which was effected by his Grace the late Duke of Northumberland. We believe it was purchased from Mr. Claussen. It appears, from M. Alphonse DeCandolle, to have been found by the traveller Blanchet in the

Brasilian desert, near the river San Francisco, whence it takes its name.

Our drawing was made at Syon, in September, 1846. Fig. 1. represents the stamens, as they stand inside the mouth of the corolla; 3. shews the form of the stigma and the scars which are produced by the adhesion of the connective of the anthers to that organ. Fig. 2. represents the ovary, minus its style, the five large glands of the disk, and the ring of small teeth which grow between the base of the calyx and the tube of the corolla: a curious structure, not uncommon among Dogbanes, but of whose real nature no very satisfactory explanation has yet been offered.

New Garden Plant.

Catasetum serratum.

C. *serratum*; labello carnoso galeato resupinato subcompresso postice sensim saccato apice integerrimo emarginato lateribus latè sejunctis argute denticulatis, cirrhis haud columnâ longioribus.

Nearly allied to C. *maculatum*, from which it differs in the sides of the lip not curving inwards, in the shortness of the columnal cirrhi, and in the emarginate apex of the lip. The flowers are of nearly the same size, but not spotted; they are pale green, with the convexity of the lip yellow. Sent from Panama to Messrs. Veitch by Mr. Lobb. We received it from Exeter in September, 1845, with a statement that it is "a most abundant bloomer, having long spikes with from ten to twelve flowers on each spike, and powerfully scented."

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OPHRYS fuciflora.

Painted-lipped Ophrys.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. § SERAPIADÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

OPHRYS.—L.

O. *fuciflora ;* labello obovato-triangulari velutino indiviso basi bigibboso apice appendice rhombeo inflexo, petalis convolutis columnam brevirostrem subæquantibus velutinis.—*Lindl. Gen. & Sp. Orch.* 376.
O. Arachnites, *Eng. Bot. Supp. t.* 2596.
O. Crabronifera, *Sebast. & Mauri Rom. Pl. Cent.* 13. *t.* 2. *f.* 1.
O. exaltata, *Tenore Append. alt.* 83. fide Rchb.
O. apiculata, *Rich. Orch. Eur.* 33. sec. descr.
O. œstrifera, *Rchb. fl. Excurs.* 1. 128. nec Stev.
O. fuciflora, *Hall. ic. Helv. t.* 24. *f.* 2, 3. *Rchb. ic. Eur. t.* 868, 869.

These plants were drawn from specimens collected on the Continent by the Hon. and Rev. the Dean of Manchester. Fig. 1. and 2. were found in the meadows of Zaule, near Trieste ; 3. was from the neighbourhood of the Lake of Thun.

In the confusion that exists among the curious little plants which constitute the genus Ophrys, we cannot pretend to trace the history of any one species to its *antiqua fons*. That is a special labour which we commend to those who have more leisure and patience. We can only say, that all three of these plants are the same as O. *fuciflora*, which has been miscalled O. *arachnites* in English Botany. The true Arachnites, which is awkwardly, but not inexactly, figured in the Botanical Magazine, t. 2516, has no hair on its lip.

Our English Spider Orchis appears to be in reality much nearer O. *fuciflora* than was suspected, for instead of wanting the elevated processes which rise from the lip of that species, it equally produces them, as has been pointed out to us by the Dean of Manchester, and as is shewn in our fig. 4. taken from a plant gathered near Dover. But the processes are in

a different place; and among the many specimens of these plants now before us we find no variation from what we take to be the essential distinction between them—namely, the form of the lip, and the appendage at its point. In O. *araneifera* the lip is always oval and emarginate, while in O. *fuciflora* it is constantly wedge-shaped and furnished with a fleshy lobe at its point, which circumstance gave rise to Richards' name of *apiculata*.

New Garden Plant.

Dendrobium Veitchianum.

D (Dendrocoryne) *Veitchianum*; caulibus clavatis angustè costatis 2-3-phyllis, foliis sessilibus oblongis apice acutis inæquilateris, racemo erecto multifloro foliis longiore, bracteis ovatis membranaceis acutis, pedicellis sepalisque ovatis acutis extùs villosissimis, petalis unguiculatis spathulatis acutis tenuibus glabris, labello maximo alte trilobo, denticulis tribus in medio, laciniis lateralibus ascendentibus rotundatis crenatis flabellatim venosis intermediâ convexâ rotundatâ bilobâ.

We are not sure that this will not prove a rival to the best of the East Indian Orchids. It is a most beautiful plant, with upright racemes of large mossy flowers, nearly two inches in diameter, and a fine stiff habit. Its sepals are a clear dull yellow, the petals pure white, the lip deep-green bordered with white, and richly marked with crimson veins. It is from Java, and is in the possession of Messrs. Veitch, to whom we are indebted for the materials from which the above description has been drawn up. This, too, is one of Mr. Thomas Lobb's fine things.

MACROMERIA exserta.

Long-stamened Macromeria.

PENTANDRIA *MONOGYNIA.*

Nat. ord. BORAGINACEÆ. (BORAGEWORTS, *Vegetable Kingdom, p.* 655.)

MACROMERIA, Don.—Calyx sub-5-partitus, tubo brevi, laciniis longe linearibus acutis subæqualibus. *Corolla* longe tubulosa vel tubuloso-obconica, calyce triplo quadruplove longior, pubescens, fauce nudâ, lobis 5 æqualibus tubo multo brevioribus. *Stamina* supra mediam partem corollæ a tubo liberata, filamentis gracilibus glabris, antheris lineari-oblongis fere medio dorso insertis. *Ovarium* 4-partitum, lobis e basi latâ ovatis obtusis glabris. *Stylus* filiformis, glaber. *Stigma* punctiforme subemarginato-bilobium. *Nuces* laves.——Herbæ mexicanæ, *erectæ, perennes, pilis simplicibus plus minus hispidæ.* Folia *alterna, sessilia, integra, nervis lateralibus valde obliquis et ideo in plerisque subparallelis.* Panicula *vel* racemus *terminalis, pedicellis brevibus,* floribus *facie Petuniæ ergo aliis Borraginearum majoribus et magis regularibus.*—Alph. DeCandolle, x. 68.

M. *exserta ;* caule hispido, foliis lanceolatis mucronatis scabris, genitalibus longè exsertis.—*Alph. DeCandolle Prodr.* x. 68.
Macromeria exserta, *Don in Edinb. Phil. Journal,* 1832. *Bentham pl. Hartweg, p.* 49.

This seems to be the first figure which has appeared of one of the finest genera among Borageworts. We are indebted for the opportunity of publishing it to the garden of the Horticultural Society, where, last September, flowers were produced by a plant raised from Mr. Hartweg's Mexican seeds. This traveller found it near Tuspan and Anganguco, in his first journey in Mexico ; but it was not till his second visit in 1846 that he succeeded in obtaining ripe seeds.

It is a fine half-hardy perennial, growing from two to three feet high, if potted in a mixture of sandy loam and fibry peat in equal parts.

It is increased by seeds and flowers from August to October, if kept in the greenhouse.

Its foliage is, however, too coarse to make it of much

value as an ornamental plant; and its flowers, which always droop, fall so soon after opening, that it never looks so well as its showy appearance on paper, or in the Herbarium, would lead us to expect.

New Garden Plants.

Saccolabium miniatum.

S. *miniatum;* racemis brevibus erectis cylindraceis, bracteis minimis acutis, sepalis petalisque ovatis acutis patulis, labello lineari obtuso recurvo calcare recto pendulo tereti breviore, polliniis albis.

A Java plant, imported by Messrs. Veitch, and flowered by both Mr. Rucker and Mr. C. B. Warner. It is not to be traced among Blume's species, and seems new. Its flowers, of a gay vermilion, or rich apricot colour, although somewhat small, have an extremely lively effect; they grow in upright racemes, about ten together. We have not seen the foliage.

Renanthera matutina.

Lindl. gen. & sp. Orch. p. 218.

We find that we were wrong in referring to this species the plant figured in our volume for 1843, t. 41. That species we find in Sir W. Hooker's Herbarium, under the name of R. *moluccana* of Blume. We now know that the true R. *matutina* is a much finer plant, with petals more than an inch long, it having been sent from Java, by Mr. Thomas Lobb, to Messrs. Veitch, who have it for sale. It produces a large branching panicle, each of whose arms is from six to nine inches long, and carries from six to twelve flowers.

JACQUEMONTIA canescens.

Hoary Jacquemontia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CONVOLVULACEÆ. (BINDWEEDS, *Vegetable Kingdom, p.* 630.)

JACQUEMONTIA.—*Sepala* 5. *Corolla* campanulata. *Stylus* unicus. *Stigmata* 2, ovato complanata. *Ovarium* biloculare, 4-ovulatum. *Capsula* 2-locularis.——Herbæ *aut* suffrutices; *ex* Americâ *species omnes quæ satis notæ.*—Choisy in DC. Prodr. ix. 396.

J. *canescens*; scabro-pubescens, foliis oblongis cordatis acutis longè petiolatis, cymis pedunculatis densifloris petiolo longioribus, sepalis oblongis obtusis corollâ multò brevioribus.

Jacq. canescens, *Benth. pl. Hartweg. no.* 1234. *Lindl. in Hort. Soc. Journal,* 1. 298.

J. violacea β, *Choisy, l. c.*

Convolvulus canescens, *H. B. Kunth nov. gen. & sp.* 3. 99.

Convolvulus polyanthus, *Schlecht & Chamisso in Linnæa,* 1830. *p.* 117.

The type of the genus Jacquemontia is the old *Convolvulus pentanthus*, of which M. Choisy now regards this as a variety. It differs from Pharbitis in having but two cells in the ovary; from Ipomea, in the lobes of its stigma being flat not spherical; and from Convolvulus, in their not being long and narrow.

The following account is given of it in the Journal of the Horticultural Society:—

"Raised from seeds, collected by Mr. Hartweg near the village of Fusagasuga, in the province of Bogota.

"A perennial twining plant, with the stems and leaves closely covered with a short down, which is brown and white, and by no means justifies the name of canescens given the species by M. Kunth. The leaves are about two inches long, of a firm texture, concave, heart-shaped at the base, with an oblong outline which is rather wavy. The flowers grow in close cymes of from nine to eleven each, on stalks somewhat shorter than the leaves. They are of a clear bright blue,

and very handsome. The corolla is an inch and a half across, with a flat limb, a very short tube, and long projecting stamens.

"The species has been regarded by M. Choisy as a variety of Jacquemontia violacea, the Convolvulus pentanthus of gardens, but it is certainly quite distinct and far handsomer.

"It grows freely in soil composed of equal parts of peat and loam, mixed with a little sand. In this country it must be treated as a greenhouse climber, and its slender stems trained round a trellis fixed in a pot, or it may be planted out in the border of the house and trained up the rafters. In either place it will succeed very well, and flower abundantly during summer and autumn. It strikes readily from cuttings prepared in the usual way.

"It is a welcome addition to our collections of greenhouse creepers, as its habit is neat, and the flowers are of the same colour and larger than in the J. violacea just noticed."

New Garden Plant.

Telipogon obovatus.

T. *obovatus;* rachi flexuosâ alatâ, bracteis ovatis acutis falcato-cucullatis, petalis oblongis acutis, labello duplo majore obovato rotundato.

A curious plant, sent from Peru by Mr. Lobb to Messrs. Veitch, by whom it has been sold. It has not yet flowered; but it will prove a very nice plant when it does blossom. Its flower-stem is six inches high; the flowers are bright yellow, an inch and three-quarters in diameter. It is near T. latifolius, but its flowers are larger, and its lip, instead of being shaped like the petals, is larger, and quite round at the point.

AKEBIA quinata.

Five-leaved Akebia.

MONŒCIA *HEXANDRIA*.

Nat. ord. LARDIZABALACEÆ. (LARDIZABALADS, *Vegetable Kingdom, p.* 303.)

AKEBIA, Decaisne.—MASC. *Calyx* 3-phyllus, foliolis ovato-lanceolatis concavis subæqualibus, in æstivatione subvalvatis. *Petala* 0. *Stamina* 6 biserialia subæqualia libera, filamentis cylindraceis primo erectis dein incurvatis; antheris muticis. *Ovariorum* rudimenta 6.—FŒM. *Calyx* foliolis subrotundis concavis. *Stamina* 6-9, nana, abortiva. *Ovaria* 3-9, tunc ordine ternario disposita, distincta, oblongo-cylindracea, in stylum brevem stigmate peltato terminatum attenuata, ovulis parieti foveolato v. papilloso affixis, primò orthotropis seriùs anatropis?——*Frutices* Japonici *scandentes*, foliis *peltatim digitatis*, 3-5-*foliolatis*, foliolis *apiculatis integerrimis v. repando-dentatis sublobatisve*. Racemi *axillares*, pedunculis *androgynis imâ basi squamatis, pauciforis; floribus* fœmineis *inferioribus longius pedicellatis, roseis*.—Decaisne Memoire sur les Lardizabalées, p. 195.

A. *quinata;* foliolis ternis v. sæpius quinis ovatis v. obovatis integris obtusis v. emarginatis mucronato-setaceis.—*Decaisne, l. c.*
Rajania quinata, *Thunb. fl. jap. p.* 148.

According to M. Decaisne one of the species of this genus is commonly cultivated in the gardens of Japan, where it is called *Fagi-Kadsura-Akebi*, whence its scientific name has been derived. Professor Zuccarini has stated this to be the very Japanese plant described by Thunberg, and we presume that he is right, although it does not quite agree with the published descriptions of the plant, and comes from a much more southern latitude.

Mr. Fortune, who sent it home, and from one of whose plants our drawing was made last March in the garden of the Horticultural Society, informs us that it is one of the wild plants of Chusan. "I found it growing on the lower sides of the hills, in hedges, where it was climbing on other trees and hanging down in graceful festoons from the ends of their branches. The colour of its flowers in China is of a dark

brown, not unlike the Magnolia fuscata, and they are very sweet-scented. Indeed, it was the delightful fragrance which first attracted my attention to the spot where the plant was growing. Many of the officers of our troops stationed at that time in Chusan spoke to me of a sweet-scented flower which they could not find, owing to the unattractive colour of the blossoms."

"In the garden of the Horticultural Society, where it has flowered for the first time in England, the flowers are much lighter in colour, and nearly scentless. We may still hope, however, that when the plant gets older it will shed its fragrance on us, as well as upon the Chinese in those hedges where it 'blooms unseen.'

"As the past winter has proved many of my Chusan plants perfectly hardy in this country, there is every reason to suppose that this Akebia will succeed well when grown on trellis in the open air. Young plants are easily made from cuttings of the stems or roots treated in the ordinary way. In China it generally grows in poor well-drained soil."

Fig. 1. represents one of the carpels; and 2. its appearance when cut across, with the peculiar parietal placentation, and sunken ovules. Will some one of the botanists who can see nothing but sutural—that is to say, marginal—placentation in all carpels, explain how these Lardizabalads are to be reconciled with their theory?

BRASSIA brachiata.

Long-armed Brassia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § BRASSIDÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

BRASSIA.—R. Brown.

B. *brachiata* (Lindl. in Plant. Hartw. p. 94.); pseudobulbis oblongis angustis compressis diphyllis, foliis obtusis racemo multifloro brevioribus, bracteis patentibus squamæformibus, sepalis petalisque brevioribus linearibus acuminatis longissimis, labello basi rotundato sursum subrhombeo acuminato undulato verrucis planis coloratis maculato, lamellis basi dentiformibus lineâ elevatâ per medium labellum.

This beautiful plant was originally defined from a dried specimen, collected near the Hacienda de la Laguna, in Guatemala, by Mr. Hartweg. Since its introduction, it has occasionally flowered, as with Messrs. Rollissons, and with Mr. Bateman, whose plant is now represented, but it remains a comparatively scarce species. It is far handsomer than either B. *guttata* (aliàs *Wrayæ*), or *verrucosa*, and its flowers are many times larger. The only species that really can vie with it in beauty is *Br. macrostachya*.

Like B. *verrucosa*, this species has the singular peculiarity of bearing upon its lip, numerous flat warts, to which the green colour of that part is exclusively confined. It might be as well to examine their structure, with a view to determining their nature and office.

This fine epiphyte is best grown elevated on a pot, well drained, and in a mixture of the fibre out of rough peat, and half decayed leaves, in equal portions. When the plant has completed its season's growth, it should be allowed a season of rest, which is best attained by withholding moisture, first from the atmosphere, and afterwards from the roots, and by reducing the temperature of the house, never at any time

allowing fire heat to rise above fifty-eight or sixty degrees, particularly late in the autumn. Indeed, it cannot be too constantly borne in mind, that high temperature, and abundance of moisture, more especially about the roots, are very unsuitable to nearly all the western Orchids.

It is increased by dividing the plant when in a state of rest. It flowers at different seasons of the year, according to the time of resting, and the length of repose allowed.

New Garden Plant.

Bolbophyllum Lobii.

B. *Lobii;* folio petiolato obovato-oblongo coriaceo, pedunculo unifloro folio breviore, pedunculo nudo unifloro folio breviore basi subglanduloso e bracteis squamæformibus cucullatis falcatis subglandulosis erumpente, sepalis oblongis acutis lateralibus falcatis, petalis conformibus minoribus reflexis, labello longè unguiculato cordato ovato acuto canaliculato apice recurvo.

How fine a plant of its kind this is, may be surmised by its having been taken for a Cœlogyne. The flowers are yellow, shaded with cinnamon, spotted with light brown, and speckled outside with brown purple. They are full four inches across. We know of no species of the genus comparable for beauty. Mr. Thomas Lobb sent it from Java to Messrs. Veitch, who have it for sale. We find it in Sir W. Hooker's Herbarium, marked *Sestochilus*, but we do not know on what authority it is referred to that supposed genus. We have named this fine plant after Mr. Thomas Lobb, whose zeal and ability, as a botanical collector, are beyond all praise, and whose dried specimens are unrivalled for beauty, and admirable selection.

1

VANDA violacea.

Violet Vanda.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. § VANDEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

VANDA.—R. Brown.

V. *violacea* (Lindl. in Bot. Reg. 1841. misc. 32.); foliis canaliculatis obliquè abscissis rotundatis, racemis multifloris densis pedunculatis pendulis, sepalis obovato-oblongis obtusis planis incurvis, petalis angustioribus, labello oblongo apiculato plano: venis 5 crassis elevatis, sacco intus pubescente.

Although it is nearly six years since we first became acquainted with this species, it was only in February, 1846, that we had an opportunity of having it drawn. It then flowered in great perfection with Messrs. Loddiges.

It is one of those charming epiphytes which are only procured in the fertile regions of the East. Mr. Cuming found it in Manilla, and introduced it to Europe.

The flowers are in short pendulous racemes, rather large, with an ivory white ground spotted with light violet; of the latter colour there is one large blotch within the extremity of each sepal and petal, and a few small dots are scattered over their surface; the lip is wholly violet. The flowers have a faint and rather disagreeable smell, which is not, however, perceived till they are nearly approached.

Fig. 1. represents a side view of the column and lip of this plant.

Although we now possess several Vandas of much beauty, the finest is still unknown in Europe. This glorious plant, perhaps the noblest of the Indian race, was called *Vanda cærulea* by Mr. Griffiths, who found it among the Khasya or

Coosya Hills, and sent us dried specimens. Its flowers are as large as those of *Vanda teres*, and the foliage is as good as that of *Aerides odoratum*. It is to be regretted that we should have no more exact information as to where it may be found, but we can hardly suppose that it could be missed by any plant-collector who might be sent after it into Sylhet.

The leaves of this wonderful plant are five inches long by nearly one inch wide; at their end they are two-lobed equally, and each lobe is sharp-pointed, so that the end looks as if a piece had been struck off by a circular punch. The flowers grow in upright spikes. A piece of a stem but four inches long bears four such spikes, which are from six to nine inches long, and carry from nine to twelve flowers. Each dried flower is between *three and four inches in diameter*, and if allowance is made for their having shrunk in drying, they may be estimated *as at least a foot in circumference*. The lip is, as is usual among Vandas, small; it is barely three-quarters of an inch long, narrow, with a short spur and a two-lobed point. Its surface is broken by three deep parallel perpendicular plates, and the lateral lobes of the base are triangular and acuminated.

In order to secure Mr. Griffiths' name, and to give more precision to this popular description, the following specific character is proposed.

V. *cærulea* (W. Griffith in litt.); foliis distichis coriaceis apice æqualibus truncatis sinu concavo lobis lateralibus acutis, spicis densis erectis multifloris, bracteis oblongis concavis obtusissimis membranaceis, sepalis petalisque oblongis obtusissimis planis subunguiculatis, labello coriaceo lineari-oblongo apice divergenti-bilobo obtuso per axin trilamellato laciniis basilaribus triangularibus acuminatis, calcare brevi obtuso.

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HENFREYA scandens.

Climbing Henfreya.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. ACANTHACEÆ. § RUELLIÆ. (ACANTHADS, *Vegetable Kingdom, p.* 678.)

HENFREYA.—Scandens, racemis nudis multifloris. *Calyx* 5-partitus. *Corolla* infundibularis, bilabiata, laciniis subæqualibus. *Stamina* 4, antheris basi aristatis. *Ovarium* loculis dispermis. *Stigma* parvum, bilobum, obtusum, æquale. *Capsula* clavata, stipitata, apice tantum seminifera. *Semina* (immatura) circularia, immarginata, lævia.—*Lindley in Bot. Reg.* 1847. *sub t.* 23.

H. scandens, *Lindley, l. c.*

The climbing habit of this plant is an unusual feature in the order to which it belongs. We presume it to be nearly related to Thonning's *Ruellia quaterna*, another West African climbing plant, with white flowers.

Under the provisional name of Dipteracanthus ? scandens, it was exhibited by Mr. Glendinning of Turnham Green, at a meeting of the Horticultural Society, in the spring of the present year, when it was awarded a Knightian medal. A full examination of the structure, having shewn that it forms a new and very distinct genus, we have ventured to name it after Arthur Henfrey, Esq., F.L.S., a gentleman already much distinguished for his sound acquaintance with Botany, especially Vegetable Anatomy. Its stigma separates it decisively from both Dipteracanthus and Strobilanthes, to which it has in other respects much apparent affinity. In Henfreya, this organ consists of two short blunt lobes, while, in the latter genera, it consists of two very unequal teeth, one of which is drawn into a fine point. Moreover, neither Dipteracanths, nor Strobilanths, have aristate anthers, and the former has four to six ovules in each cell of the ovary, the latter angular seeds.

This species seems to be common at Sierra Leone; it was found there by Mr. George Don, whose specimens, in our

Herbarium, are in fruit; and we also possess wild specimens from Mr. Whitfield, by whom it was introduced in a living state. We are indebted to Mr. Glendinning, in whose nursery it is cultivated, for the following memorandum:—

"Amongst the numerous plants of climbing habit which adorn our stoves, Henfreya scandens is assuredly a subject deserving our notice. Under the most liberal, and satisfactory cultivation, it never ranges beyond proper limits. Its foliage is not subject to injury, being also dark green, coriaceous, and permanent, contrasting admirably with the delicate Petunia-like flowers, which are produced in the utmost abundance, in racemes, at the angle of every leaf, continuing to throw out a succession of bloom for several months. Its cultivation is not by any means difficult. The following treatment has enabled me to flower it with certainty and success. After it has ceased to produce flowers in the spring, or beginning of summer, it should be divested of the greater part of the old soil, and repotted in fresh turfy peat and loam, in equal portions, intermixed with a small portion of silver sand. The pot should be rather small in proportion to the size of the plant; plunge it in bottom heat, where a humid glowing temperature, perfectly sweet, of 75° or 80° is kept up during night, and partially shaded during bright sunlight. When roots have been plentifully produced, give it a final shift, using rough material as before described; a few round stakes will answer for its support, and to which the shoots must be tied as they grow; by autumn it will have done its work, and may then be brought into flower at any time from February to May, by placing it in a higher temperature as may be required."

Fig. 1. represents the anthers; 2. the stigma; 3. a cross section of the ovary; 4. a longitudinal section of it.

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CHÆNOSTOMA polyanthum.

Many-flowered Chænostome.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARIACEÆ. (FIGWORTS, *Vegetable Kingdom, p.* 68.)

CHÆNOSTOMA, Benth.—*Calyx* 5-partitus. *Corolla* decidua, infundibuliformis vel subhypocraterimorpha, fauce plus minus ampliata, rarius tubo brevissimo subcampanulata, limbi laciniis integris. *Stamina 7,* antheris consimilibus faucem æquantibus vel exsertis.——Herbæ suffruticesve *Austro-Africani.* Folia *fere omnia opposita, dentata vel rarius integerrima, floralia conformia vel bracteæformia, a pedicello libera.* Flores *axillares vel racemosi, pedicellati, siccitate non nigricantes.* Capsulæ *glabræ, septicide bivalves, valvulis breviter bifidis.*—Species plures variant caule annuo vel perenni basi frutescente.—*Bentham in DC. Prodr.* x. 303.

C. *polyanthum* (Bentham in DC. Prodr. x. 354); herbaceum vel suffruticosum basi ramosissimum, ramis apice pubescentibus paniculatis, foliis ovatis dentatis basi cuneatis supremis oblongis glabris vel subtus canescentibus, racemis laxis, calycibus hispidis, corollæ infundibuliformis tubo calycem vix superante.

A small spreading suffruticose half-hardy plant, of very pretty appearance, requiring the same treatment as Verbenas, and like them well suited for bedding out in summer. It is easily increased either by seeds or by cuttings, grows freely in any good rich garden soil, and flowers abundantly from July to September.

About the middle of August, a quantity of young plants should be struck from cuttings, and afterwards kept in an airy greenhouse during the winter, so as to be ready for the next year's consumption, for turning out into the open border.

The genus Chænostoma is an offset from the old Manuleas, and consists of a considerable number of Cape species, most of which are plants of little beauty. They are known from

the Manuleas by the inflated throat of the corolla, its rounded segments, and the included stamens.

Mr. Bentham mentions 37 species.

Fig. 1. shews the anther of this plant; 2. a section of its pistil; 3. a cross section of the ovary.

New Garden Plants.

Cleisostoma spicatum.

C. *spicatum*; spicis densis brevibus multifloris, floribus pilosis, labelli calcare obtuso labello longiore laminâ ovatâ acutâ medio cristatâ dente dorsali bilobo lobis acutissimis denticulatis.

A Borneo plant, exhibited by Messrs. Rollissons at the last meeting of the Horticultural Society. The leaves are large and broad, the flowers red and yellow in short oblong spikes.

Megaclinium velutinum.

M. *velutinum*; pseudobulbis ovatis trigonis (3-4-gonis ?) foliis oblongo-lanceolatis emarginatis, rachi lineari-oblongâ crenatâ, sepalis pilosis supremo recurvo obtuso calloso marginato lateralibus refractis ovatis acutis intus velutinis, petalis linearibus acuminatis, labello ovato transversè corrugato obtuso, columnâ utrinque dente obtuso auctâ.

Nearly related to *M. falcatum*, from which its lateral sepals velvety inside distinguish it. The flowers are deep purple as well as the rachis, except the upper sepals and petals which are dull yellow. Messrs. Loddiges imported it from Cape Coast Castle.

SOLANUM jasminoides.

Jasmine-leaved Bittersweet.

PENTANDRIA *MONOGYNIA.*

Nat. ord. SOLANACEÆ. (NIGHTSHADES, *Vegetable Kingdom, p.* 618.)

SOLANUM.—L.

S. *jasminoides;* scandens, glabrum, foliis pinnatifidis ternatis integrisque longè petiolatis, foliolis ovatis basi obtusis, paniculis cymosis terminalibus oppositifoliisque.

S. jasminoides, *Paxton's Magazine, vol.* viii. *t.* 5.

Although we adopt the name given to this plant by the Editor of Mr. Paxton's Magazine, we acknowledge that we do so without being satisfied about its being distinct from the old S. *Seaforthianum.* Its native country is unknown; it is merely stated to have been received from the Glasgow Botanic Garden, by Messrs. Young of Epsom, and is "considered to be a South American plant." S. *Seaforthianum* is a West Indian species, growing freely in a conservatory.

The only distinction we can make out between the two, consists in the present plant having its flowers more compactly panicled, and the leaves less undulated than they are represented in the published figures of Lord Seaforth's Bittersweet, but we have no specimen of the latter in our Herbarium, and want means of comparison.

The leaves of this plant are sometimes pinnatifid, sometimes ternate, sometimes quite undivided. It would also appear to vary in the colour of the flowers, for in Paxton they are represented and described as pale blue; in the plant from which the accompanying figure was taken, they are nearly white.

Whatever it may be, it is found in the Garden of the Horticultural Society, where our drawing was made in September, 1846, to be perfectly hardy if trained against a wall

with a southern aspect. It then becomes an exceedingly pretty climber, and a great ornament.

It is easily increased by cuttings in the ordinary way, and grows freely in any good common soil, flowering all the autumn.

It was presented to the Society by Mr. H. Low, of Clapton Nursery, about two years ago.

1
2

COLLANIA dulcis.

Sweet Collania.

HEXANDRIA *MONOGYNIA.*

Nat. ord. AMARYLLIDACEÆ. (AMARYLLIDS, *Vegetable Kingdom, p.* 155.)

COLLANIA, Herbert Amaryllid. p. 103. nec *Schultes.*

C. *dulcis;* caule erecto filiformi flexuoso, foliis oblongis glaucis obtusis basi angustatis, floribus 1-4 pendulis cylindraceis.
Alstromeria dulcis, "*Hooker Bot. Misc.*"
C. dulcis, *Herbert Amaryllid. p.* 104.

For the opportunity of publishing this rare plant we are indebted to our kind correspondent the Dean of Manchester, with whom it flowered in August, 1846.

In the "Amaryllidaceæ" it is said to be a native of Huallay, near Pasco, in Peru, at a height of from twelve to fourteen thousand feet above the sea, and to be called by the country people *Campanillas coloradas.* We have received the following memorandum from the Dean of Manchester on the subject, from which will be seen his present views respecting the plant.

"I have little to add to what is said concerning Collania dulcis in my Amaryllidaceæ, to which I have not access at the present moment. The name dulcis was suggested in Sir W. J. Hooker's Herbarium, where it is stated that on the Andes of Bolivia the children gather its capsules to eat, on account of their sweet pulp. This plant was raised from seed in some capsules which were very mouldy, sent to me by J. Maclean, Esq., from Lima. The capsules exhibited no appearance of the sweet pulp, which was quite absorbed. The genus Collania was distinguished by me from Bomarea by the great prominence of the operculum of the germen, making it to be at least semisuperior instead of inferior, and the seeming coincidence of that feature and the alleged sweet pulp, with a rigid erect stalk curved downwards so as to have the inflorescence drooping. It is, however, impossible, from dried specimens, and without knowing the peculiarities of all

the numerous species that belong to and are connected with the genus Bomarea, to be certain whether Collania and Sphærine should be considered as separate genera or very marked sections or subgenera. The stalks of t' is plant are about a foot high, erect, with a little tortuosity, but not prehensile; and it seems that those of the much finer Collania Andimarcana, lately raised from seed by Mr. Veitch, have a similar tortuosity without being prehensile. The stems of C. involucrata and glauca appear, from the dry specimens, to be much more rigid and not tortuous, but the inflorescence decurved. I have, however, lately received from Mr. Maclean specimens of a remarkable Collania, which he had lately discovered on the Bolivian Andes, with a very short erect rigid stalk, and the inflorescence, which consisted of several large flowers, (seemingly red and yellow) quite erect. I do not think the posture had been altered in drying the specimens, and I propose to call the plant Collania stricta. I learnt from Mr. Maclean that some of the gigantic Bomareas, which have not been introduced into this country, especially one superb species which I described in the Appendix to the Botanical Register, growing on the side of the road to Vitoc from Lima, do not twine, but run up amongst the branches to the top of a tree, and hang down from thence with a pendulous umbel. Bomarea salsilla (oculata of some) differs from the larger Bomareas of the middle size both in the seed and the curvature of the anthers, and the genus, when thoroughly known, will exhibit some very marked diversities. The filaments of Collania dulcis are not at any period recurved. One of the seedlings, planted in a protected border in front of a greenhouse, lived two years without flowering, and died. The other, kept in the greenhouse nearly dry after its stalks decay, shoots again in April, and, after standing out of doors plunged in a sand-bed during the summer, flowers in October or as late as December. It is rather capricious, and some of its stalks sometimes die without an apparent cause, but probably from too much wet."

W. H.

Fig. 1. represents the petals, stamens, and pistil; 2. shews one of the petals seen from the inside. The sepals are entirely destitute of a nectarial scale.

It may be as well to observe that this genus Collania is entirely different from that so called by Schultes.

EPIDENDRUM plicatum.

Plaited-lipped Epidendrum.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. § EPIDENDREÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

EPIDENDRUM.—Supra passim.

§ ENCYCLIUM.

E. *plicatum ;* **pseudobulbis ovato-oblongis teretibus diphyllis, foliis coriaceis ensiformibus, racemo paucifloro (?) tactu glabro, bracteis minimis squamiformibus, sepalis petalisque obovato-lanceolatis acuminatis, labelli laciniis lateralibus oblongis acuminatis obtusis intermediâ cordatâ plicatâ cuspidatâ subbrevioribus ungue crasso sulcato, columnâ apice utrinque dentiferâ.**

This fine species has been introduced from Cuba, by Messrs. Loddiges, with whom it flowered last January. It is remarkable for the petals, which are green inside, with a few purplish stains near the point, being of a deep rich violet on the outside! The sepals are greenish, stained with dull purple on both sides. The lip is of a very rich purple, with a little yellow near the base; its middle lobe is strongly plaited, and deeply cordate.

It is most nearly allied to E. *ceratistes*, a plant found by Mr. Linden on the snow-capped mountain ridge of Santa Martha ; but that plant has a large branching panicle, smaller flowers, and shorter lateral lobes to the lip, which is white, with the middle lobe not at all cordate.

Fig. 1. represents the inside of the lip of this species, somewhat magnified.

It may be interesting to some of our readers, to know that there exists in Florida, a species allied to this, the introduction of which would be desirable. It occurs near Tampa Bay, whence we have specimens communicated by Dr. Torrey, and

might be readily obtained by any one trading with Florida. It is a slender species, with the habit of Epidendrum odoratissimum, but with much larger flowers, (whose colour is unknown,) and very narrow leaves. The pseudo-bulbs are small and terete, with a narrow tapering neck. A Botanist will recognise it by the following definition :—

E. *tampense* (Encyclium); pseudobulbis anguste ovatis acuminatis teretibus, foliis linearibus apiculatis paniculâ racemosâ sparsâ duplò brevioribus, sepalis petalisque oblongo-linearibus acutis, labelli tripartiti laciniis lateralibus linearibus obtusis intermediâ basi obscurè 3-nerviâ oblongâ acutâ paulò longiore.

DENDROBIUM chrysotoxum.

The Golden-arch Dendrobe.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. § MALAXIDÆ—DENDROBEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

DENDROBIUM.*— *Supra passim.

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§ DENDROCORYNE.

D. *chrysotoxum* (Lindl. in Bot. Reg. 1847. sub t. 19) ; pseudobulbis clavatis angustis multicostatis 2-4-foliis, foliis oblongis horizontalibus coriaceis, racemis lateralibus laxis gracilibus arcuatim decurvis pseudobulbis æqualibus, bracteâ basilari parvâ spathaceâ floralibus minimis herbaceis, sepalis petalisque explanatis oblongis obtusissimis planis his duplò latioribus, labello indiviso cucullato rotundato pubescente margine minutissime pectinato et fimbriato.

The Dendrocorynes, or Club Dendrobes, form a peculiar group in the large genus to which they belong, best perhaps characterized by their having a fleshy, angular stem, with two or more manifest articulations, one or more leaves at the upper end, and a lip not broken up into a tuft of hairs or fringes. They are as it were Bolbophylls passing into Dendrobes. In the group thus limited are included D. densiflorum, Griffithii, aggregatum, tetragonum, Veitchianum, speciosum, and some others formerly placed in Desmotrichum, a section which it seems better to limit to the species whose lip is broken up into a brush.

The present species, which was imported from the East Indies by Messrs. Henderson, is extremely handsome. It differs from D. *densiflorum* in its many-angled pseudobulbs, small bracts, and curiously fringed pubescent, not shaggy, lip ; from D. *Griffithianum* in its round emarginate fringed lip ; and from D. *aggregatum* in the same respects, as well as in its great club-shaped many-leaved pseudobulbs.

Our drawing was made in Messrs. Henderson's Nursery in March last. Fig. 1. represents a portion of the edge of the lip much magnified.

July, 1847.

New Garden Plants.

Dendrobium Egertoniæ.

D. *Egertoniæ;* caule tereti erecto basi ebulbi, foliis . . . . . , floribus 2-4-nis, sepalis linearibus obtusis petalis angustioribus, labello ovato obtuso unguiculato parum undulato basi ciliato superne margine læviusculo intus villoso, columnâ antice glabrâ basi bicameratâ, antherâ pubescente, calcaris apice etuberculato.

This species has for some time been cultivated by Sir Philip Egerton, to whom I am indebted for a specimen. It is very near *D. mesochlorum*, but the flowers are not half the size; the sepals are pale pink outside; there is very little appearance of a purple stain on the tips of the petals and lip, and the middle of the lip is dull yellow, not green. There is, moreover, no tubercle at the back of the point of the spur, and the lip is not fringed except at its base. If it is less showy a species than *D. mesochlorum*, it is not on that account less valuable, for its flowers are delightfully scented towards evening. The plant was obtained by Sir Philip from the Botanic Garden, Saharunpur.

Dendrobium mesochlorum.

D. *mesochlorum;* caule tereti erecto basi ebulbi, foliis lanceolatis acuminatis, floribus subquaternis, sepalis ovali-linearibus obtusis petalis angustioribus, labello ovato obtuso unguiculato undulato fimbriato (præsertim basi) intus villoso, columnâ antice glabrâ basi bicameratâ foveatâ, antherâ pubescente, calcaris apice a tergo gibboso.

This beautiful species, allied to D. crumenatum, and resembling it in habit, although destitute of a bulbous base to its stems, was imported from India by Messrs. Veitch, and exhibited by them at the last meeting of the Horticultural Society, where it gained the medal. It is not discoverable among any of Dr. Blume's Onychiums, of which it would be one. The flowers are white, of the size of D. crumenatum, with a violet spot at the end of the petals and lip, and with a green stain in the centre of the latter. They have a faint but agreeable odour.

ONOBRYCHIS radiata.

Ray-fruited Saintfoin.

DIADELPHIA *DECANDRIA*.

Nat. ord. FABACEÆ. (LEGUMINOUS PLANTS, *Vegetable Kingdom, p.* 544.)

ONOBRYCHIS, Tournef.—Calyx quinquefidus, laciniis subulatis, subæqualibus. *Corollæ* papilionaceæ vexillum obovatum v. oblongum, alæ carina oblique truncata breviores. *Stamina* 10, filamento vexillari libero diadelpha, *antheræ* conformes. *Ovarium* uniovulatum. *Stylus* longissimus, medio geniculato adscendens; *stigma* capitellatum. *Legumen* subsessile, uniarticulatum, compressum, indehiscens, monospermum, lacunoso-reticulatum, margine superiore seminifero crassiore, recto, inferiore tenuiore, curvato, sæpissime dentato, spinoso v. lobato. *Semen* subreniforme.——Herbæ *annuæ v. sæpius perennes, rarius suffrutescentes, in Europa et Asia media indigenæ;* foliis *imparipinnatis,* stipulis *margine exteriore coalitis, ideo oppositifoliis,* spicis *axillaribus et terminalibus longe pedunculatis,* floribus *rubris v. albidis.*—Endl. gen. no. 6619.

O. *radiata;* caule erecto molliter hispido, foliolis ovatis obtusis mucronatis subtus hirsutis, spicis cylindricis, alis sagittatis calyce duplo brevioribus, calycibus leguminibusque villosis.—*DC. Prodr.* 2. 347.
O. radiata, *M. Bieb. Cat. hort. gorenk.* 1812. *p.* 73.
Hedysarum radiatum, *Desf. ann. mus.* 12. *t.* 13. *Bieb. suppl. no.* 1450.
H. Buxbaumii, *Bieb. Fl. Taur. cauc. no.* 1150.

A native of stony hills in the region of Caucasus, common about Tiflis, flowering in summer.

It is a showy plant, conspicuous from its racemes of white flowers with a central yellow spot.

In our gardens it is a hardy herbaceous perennial, which grows about one foot in height, and succeeds best when planted in a rich sandy loam, and in a situation which is rather dry, particularly during winter.

It is increased by seeds, and the young plants will not flower before the second season.

It flowers freely from the end of June to the beginning of August.

It was raised in the garden of the Horticultural Society, from seeds received from Dr. Fischer.

Fig. 1. represents the keel and wings with a part of the calyx; 2. the stamens; 3. the legume.

SPIRÆA pubescens.

Downy Spiræa.

ICOSANDRIA *PENTAGYNIA*.

Nat. ord. ROSACEÆ. (ROSEWORTS, *Vegetable Kingdom, p.* 563.)
SPIRÆA.—L.

S. *pubescens;* ramis foliisque præsertim subtus pubescentibus, foliis ovato-oblongis acutis grossè serratis subtrilobis, corymbis parvis hemisphericis, carpellis 5 pilosis.
S. pubescens, "*Turczaninow decades plant. sinens.* 11," fide *Walpers Repert.* 2. 49. *Journal of Hort. Soc.* 2. *p.* 157.

This shrub is one of Mr. Fortune's minor acquisitions in Chusan. It is certainly identical with the *Spiræa pubescens,* Bunge, of which we have a specimen by favour of the Imperial Museum of St. Petersburgh.

Our drawing was made in March last in the Garden of the Horticultural Society. In the Journal of the Society it is spoken of thus.

"This is a small grey shrub, with little hemispherical umbels of pure white small flowers, having a slight fragrance. In habit it may be compared to a weak Spiræa opulifolia. Its leaves, when full grown, are about an inch and a half long, much wrinkled, wedge-shaped and entire at the base, unequally serrated towards the point, and covered beneath with wool, which becomes cinnamon-coloured as it grows old. The uppermost leaves beneath the umbels are oval or oblong, and less unequally serrated."

"It appears to be nearly hardy, grows about two feet high, and flowers freely in any good garden soil. We may expect this to prove an ornamental shrub for planting in sheltered situations and warm districts."

Fig. 1. represents a section of a flower, minus the petals.

It may be worth noticing in this place, that Mr. Fortune found in the north of China, but did not succeed in bringing home alive, a second Asiatic species of Amelanchier, much handsomer than A. *japonica*, and perfectly distinct. In his herbarium it is called a dwarf ornamental shrub. It has long racemes of flowers, with large white petals, and is perfectly smooth in all its parts. Its calyx is partially petaloid, which must add considerably to the beauty of the plant. It may be thus defined.

A. *racemosa ;* foliis glaberrimis junioribus oblongis mucronatis basi angustatis, racemis multifloris glabris, calycis laciniis ovatis acutis petaloideis serratis, carpellis nudis.

2
1

FORSYTHIA viridissima.

Dark Green Forsythia.

DIANDRIA *MONOGYNIA.*

Nat. ord. OLEACEÆ. (OLIVEWORTS, *Vegetable Kingdom, p.* 616.)

FORSYTHIA, Vahl.—*Calyx* brevissimè campanulatus, quadripartitus, deciduus. *Corolla* hypogyna, subcampanulata, quadripartita, tubo brevissimo, lobis æstivatione contortis. *Stamina* 2, imo corollæ tubo inserta, inclusa. *Ovarium* biloculare. *Ovula* in loculis plurima, e placentis medio dissepimento utrinque insertis pluriseriatim pendula. *Stylus* brevis; *stigma* capitato-bilobum. *Capsula* ovata, compressiuscula, sublignosa, corticata, bilocularis, loculicido-bivalvis, valvis planiusculis, medio septiferis. *Semina* in loculis pauca, pendula, compressa, testa membranacea hinc in alam angustam, inde in marginem angustissimam expansa. *Embryo* in axi albuminis carnosi, parci rectus; *cotyledonibus* foliaceis, *radicula* brevi, cylindrica, supera.—*Endlicher genera, no.* 3356.——Frutices *chinenses, in Japonum hortis passim culti;* ramis *oppositis,* gemmis *perulatis, foliiferis a floriferis distinctis,* foliis *oppositis, ternis v. quaternis, simplicibus, serratis, integris v. ternato-pinnatisectis,* floribus *præcocibus, e quavis gemma solitariis, luteis.*

F. *viridissima;* ramis erectis tetragonis, foliis simplicibus oblongis et oblongo-lanceolatis petiolatis versus apicem serratis dimidiâ inferiore integerrimis, floribus ante folia breviter pedicellatis geminatis cernuis, sepalis subrotundis convexis ovarii longitudine.—*Lindley in Journal of Hort. Soc. vol.* 1. *p.* .

Until this plant was published, only one species of the genus had become known to Botanists.

"That plant, the *Forsythia suspensa* of Vahl," it is stated in the work above quoted, "was called a Lilac by Thunberg, who thus perceived its natural affinity, but was not happy in his identification of it, for although its leaves are often pinnated, yet its flowers grow in pairs from the axils of fallen leaves, instead of forming terminal panicles. It is described as a very fine shrub, with deep yellow flowers, and growing from eight to twelve feet high. According to Siebold and Zuccarini, who have figured it, there are two varieties, one with weeping branches, and the other with upright ones; both are said to have been obtained from China by the Japanese, who plant them along with evergreens for the sake of obtaining, from the varied appearance produced in the spring by this plant, a good background to the Peaches, Apricots,

and Camellias, that blossom at the same time. This species is said to have been brought alive to Holland in 1833, by M. Verkerk Pistorius." (See *Siebold and Zuccarini, Flora Japonica*, vol. i. p. 14.)

"The species obtained by Mr. Fortune is very distinct from the original Forsythia. Its leaves do not appear even to be pinnated, and instead of having an ovate form, they are strictly oblong, or oblong lanceolate. The branches are four-cornered instead of being terete, and are perfectly erect. The calyx is shorter and more membranous, and the flowers are smaller. It is no doubt a very different plant, and may be expected to become a great favourite when the specimens in the Garden are old enough to flower; for then the branches will be found to be loaded, before the leaves, with yellow flowers as large as those of *Chimonanthus grandiflorus*.

"It forms a compact deep green bush, with oblong opposite leaves serrated near the point, but perfectly free from indentations below the middle. They emit a slight balsamic odour, and from their smoothness, want of lustre, and deep rich tint, are very handsome. It is perfectly hardy, and very ornamental."

Mr. Fortune describes it as "a deciduous shrub with very dark green leaves, which are prettily serrated at the margin. It grows about eight or ten feet high in the north of China, and sheds its leaves in autumn. It then remains dormant like any of the deciduous shrubs of Europe, but is remarkable for the number of large prominent buds which are scattered along the young stems produced the summer before. Early in spring these buds, which are flower-buds, gradually unfold themselves, and present a profusion of bright yellow blossoms all over the shrub, which is highly ornamental."

He first discovered it growing in the garden with *Weigela rosea*, and afterwards in the province of Chekiang, where he thought it even more ornamental in its natural state amongst the hedges, than when cultivated in the fairy gardens of the Mandarins.

It is a free growing bush, and is easily increased by cuttings or layers.

The accompanying figure was made last March, in the garden of the Horticultural Society. Fig. 1. represents the tube of the corolla opened; and 2. a perpendicular section of the ovary.

TRICHONEMATA Græca.

Greek Trichonemes.

TRIANDRIA *MONOGYNIA.*

Nat. ord. IRIDACEÆ. (IRIDS, *Lindley's Vegetable Kingdom, p.* 159.)

TRICHONEMA, Ker.—Perigonium corollinum, superum, infundibuliforme, tubo brevi, limbi sexpartiti laciniis æqualibus patentibus. *Stamina* 3, tubo perigonii inserta ; *filamenta* erecta, inclusa ; *antheræ* oblongæ, basifixæ. *Ovarium* inferum, obtusè trigonum, triloculare. *Ovula* plurima, in loculorum angulo centrali biseriata, adscendentia, anatropa. *Stylus* filiformis ; *stigmata* 3, linearia, conduplicata, bipartita, laciniis brevibus recurvis, &c. &c. *Endl. gen. no.* 1247.

1. T. *subpalustre*, W. Herbert, MSS.
2. T. *Pylium*, Id.

We much regret our inability to furnish any account of these two pretty Trichonemes, which were collected by our late lamented friend the Dean of Manchester, drawn by his own faithful hand, and prepared for publication by himself; but, alas ! *Diis aliter visum est.* He is gone : and no trace of his views about them remains behind.

All we can learn is, that *T. subpalustre* was found at Salonica, and in the Ionian islands ; and *Tr. Pylium* at Navarino. Mr. Herbert regarded them as perfectly new forms, distinct from all that have yet been made known. We have not seen even a dried specimen of them ; and reluctantly leave them to some future botanist for elucidation.

May be it was the remembrance of having gathered these aborigines of old Hellas that led the spirit of the poet into the train of thought which produced the following beautiful lines :—

" Spectare campos ut vitreos libet,
Litusque lotum marmore cærulo,
Et stagna quâ venti quiescunt,
Actiacâ celebrata pugnâ !

Ultra tot hirtas rupibus insulas
Clausi videndum est in gremio maris
Quâ fronte Naupactus refregit
Signa tui, Mahumeda, belli,
Cùm Luna crescens sub cruce palluit
Victrice, fluctu teste meabili,
Et classis exultans adusque
Personuit strepitus Corinthum!"*

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* *Sylvæ recentiores*, p. 7.

CLEISOSTOMA ionosmum.

Violet-scented Cleisostome.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

CLEISOSTOMA, Blume.—Perianthii sepala quinque; postico fornicato; reliquis patentibus; lateralia exteriora labello supposita, inferne subcoalita. *Labellum* inferne in calcar obtusum productum; calcar intus cristatum, orificio dente vel callo clausum, utroque latere dente inflexo instructum; limbus erectus indivisus. *Gynostemium* apice interne in rostellum emarginatum productum. *Anthera* terminalis semibilocularis. *Massæ pollinis* in quovis loculo solitariæ, subglobosæ, bipartibiles, cereaceæ, pedicello communi prælongo ad basin hamato suffultæ. *Capsula* linearis, teretiuscula.—— Genus *Aëridi et Echioglosso affine, sed ob retinaculum productum nec abbreviatum, pedicellum basi hamatum nec peltatum aut arcuato-dilatum; diversum.* ——Herbæ *in arboribus parasiticæ, caulescentes.* Caules *radicantes.* Folia *disticha, rigida, subcarnosa.* Spicæ *oppositifoliæ, subramosæ.*—Blume Bijdr. 1. 363.

C. *ionosmum;* foliis distichis coriaceis ensiformibus obliquè retusis, paniculâ patente, sepalis petalisque obovatis obtusis subæqualibus, labelli hastati carnosi pubescentis laciniâ intermediâ cordato-triangulari calcare conico, columnâ pubescente antice bidentatâ.

A native of Manilla, whence it was sent to Messrs. Loddiges by Mr. Cuming. It flowered in the Hackney Nursery in March, 1844.

The flowers are in an open panicle, about an inch across, flat, with five obovate equal obtuse lobes, yellow with cinnamon-brown blotches. The lip is white with a few red streaks, three-lobed, with the basal lobes acute and smaller than the middle one, which is cordate triangular acute, and much larger than they are. The flowers smell pleasantly of violets.

Fig. 1. represents a lateral view of the column and lip; 2. the same seen from the front; 3. the pollen-masses, caudicle, and gland; 4. a cross section of a pair of pollen-masses.

The flowers are much larger than those of any species previously described.

Mr. Conrad Loddiges informs us that the leaves droop like those of Aërides odoratum; and that the plant is about two feet high. We have only seen the leaves and flowers separately.

CATTLEYA bulbosa.

Bulbous Cattleya.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)
CATTLEYA.—Lindl.

Section 2. *Lip without the lateral lobes, and flat below the column.*

C. *bulbosa;* caulibus ovalibus brevibus pseudobulbos referentibus foliis solitariis ovalibus coriaceis brevioribus, pedunculis unifloris, petalis ovalibus undulatis membranaceis sepalis duplo latioribus, labelli plani calvi lobis lateralibus brevibus rotundatis intermedio cuneato bilobo rotundato.

Brazil is supposed to be the parent of this exquisite little species, but it is not certain. We are indebted for it to Mr. Rucker, with whom it flowered in May last. It belongs to the same section as *C. Aclandiæ*, from which it differs in its having much larger lateral lobes to the lip, a very differently formed middle lobe, and flowers of quite another colour. It may also be compared with C. *pumila*, which should be placed in the same section. With the latter, indeed, it accords in its stems resembling pseudo-bulbs, and its colour, but the flowers are much larger, and the lip flat not rolled up and crisp.

The accompanying figure conveys a good idea of this lovely plant, whose flat shovel-shaped lip, of an intensely deep crimson, gradually melts away till it loses itself in the imperfect lateral lobes, which are pink, bordered with crimson.

This very pretty epiphyte should be either fastened to a block of wood, with a little sphagnum, or placed well elevated upon a pot, filled one-third with broken pots, and the remainder with the rough fibre out of peat soil, and half decayed leaves, in nearly equal portions, and afterwards placed in the lightest, coolest and dryest part of the Orchideous house.

August, 1847.

It requires but little water, even in the growing season, as plenty of moisture for Cattleyas may always be obtained by pouring water over the shelves and footpaths; as for the smaller kinds they should never be syringed overhead.

It is best increased after it has begun to grow, and not, as is generally done, when in a dormant state.

rose, but rather pyramidal. Each flower is full $1\frac{3}{8}$ inch in diameter, snow-white.

" Mr. Fortune speaks of it thus :—This noble species was also found in the gardens of the rich in the north of China, and will probably prove perfectly hardy in England. There is a tree of it in a garden on the island of Chusan at least twenty feet high, which, in the month of May every year, is covered with its snow-white blossoms. When grafted, it blooms on small plants in pots, and is not unlike a white Hydrangea, by which name it is known amongst the Chinese.

" It is certainly one of the finest hardy shrubs that have been introduced. Even in the greenhouse, and in a pot, its beauty is conspicuous. Hitherto it has been grown in a mixture of loam and sandy peat."

While upon this subject it is desirable to advert to some observations as to the genus Viburnum, lately made by Dr. Wight. In the Calcutta Journal of Natural History this distinguished botanist has the following remarks, " On the structure of the Ovarium and generic character of Viburnum."

" This, judging from the circumstance of Sprengel quoting Virgil as his authority for the name, seems to be a very old appellation. Linnæus quotes Tournefort as his authority for it, but was himself the first to fix its limits by a precise definition, which was in these words, " *Pentandria trigynia. Calyx 5-partitus superus. Corolla 5-fida. Bacca 1-sperma.*" No notice is taken either here or in the extended natural characters of his Genera Plantarum of the ovary. This character passed current among botanical writers until the publication of the fourth volume of DeCandolle's Prodromus in 1830, when he altered it by the addition of the word " *abortu,*" " *Bacca abortu 1-sperma,*" thereby implying that there were in the ovary a plurality of ovules, all except one of which aborted in progress towards maturity. This addition has, since then, been admitted by all writers, so far as I am aware, except Professors Endlicher and Lindley. The former describing the ovary " *Ovarium inferum triloculare. Ovula in loculis solitaria ex apice anguli centralis pendula,*" but adds, " *Bacca abortu unilocularis monosperma,*" evidently implying

that he had himself examined the ovary of at least one species, if not more, and found it as here described, plurilocular. Lindley, in his School Botany, takes no notice of the ovary, but allows a 3-seeded fruit; "Fruit succulent, 3-seeded," though in two of the three species he defines, I find the ovary one-celled with a single ovule.

"While examining the four Neilgherry species with reference to the articles on *Caprifoliaceæ* for my "Illustrations of Indian Botany" and "Neilgherry Plants," I found in all a one-celled ovary with a single pendulous ovule, and naturally inferred, on comparing them with Endlicher's character, that they must form a distinct genus. But before finally separating them, and adding I knew not how many synonyms to our already overgrown list, I determined to examine the structure of the ovary in every species to which I had access, among which fortunately were V. *Lantana* and V. *Opulus*, two British species, in both of which the same structure exists. Three American species were next examined with the same result; then five Nepaul ones, still the same; and lastly, three from other parts of India, in all seventeen species, in all of which the ovary is one-celled with one ovule.

"It results from these observations that the inference already drawn in regard to this genus becomes almost inevitable: namely, that if either Endlicher or Lindley's characters are the result of actual observation, all these species must be removed from the genus they define, or that they, in common with all other recent writers, must have assumed, without examination, the presence of a plurality of ovules, which does not exist, when stating the berry to be either "one-seeded by *abortion*," or "three-seeded."

"I am unable to advance beyond this point, but trust enough has been said to direct the attention of systematic botanists to the subject now touched upon, which, when carefully investigated, may lead to interesting results, examples of solitary one-seeded carpels with several stigmas being of comparatively rare occurrence in Dichlamydeous orders: *Compositæ*, *Valerianeæ*, and *Dipsaceæ*, being almost the only orders in which this combination occurs. Among Monochlamydeous plants it is more frequent, one-celled ovaries being

the predominant, though not invariable, structure in Endlicher's class *Thymeleæ*.

"Owing to its possessing this peculiar structure, the genus *Viburnum* appears more nearly related to these orders and to *Loranthaceæ* than might at first sight be suspected. *Loranthaceæ* and *Caprifoliaceæ* have long been associated as nearly related orders, though apparently with little propriety, as the former is assuredly more justly referable to the *Thymelæous* group than to either *Araliaceæ* or *Caprifoliaceæ*, with which it is now associated. The intervention, however, of *Viburnum*, with the flowers and habit of the one, and the ovary and fruit of the other, tends materially to strengthen the previously existing, but remote relationship."

An examination of various Viburnums shews that Dr. Wight's statement of the true structure of the genus is quite correct. We can say that in V. *oxycoccus*, *Opulus*, *dentatum*, *Lantana*, *cotinifolium*, *davuricum*, *Lentago*, *pyrifolium*, and *carolinianum*, the ovary is uniformly one-celled, with a single pendulous anatropal ovule, although there are from two to three stigmas. This circumstance confirms in a remarkable manner the near relation that certainly exists between the Cinchonal and Asaral alliances, which in fact differ in little except the dichlamydeous monopetalous flowers of the one and the monochlamydeous flowers of the other.

LONICERA discolor.

Stained Fly Honeysuckle.

PENTANDRIA *MONOGYNIA*.

Nat. ord. CAPRIFOLIACEÆ. (CAPRIFOILS, *Vegetable Kingdom, p.* 766.)

LONICERA.—Desf.—Calyx tubo ovato v. subgloboso, cum ovario connato, limbo supero, brevi, quinquedentato, persistente v. deciduo. *Corolla* supera, tubulosa, campanulata v. infundibuliformis, tubo æquali v. basi hinc gibbo, limbo quinquefido, regulari v. ringente. *Stamina* 5, corollæ tubo inserta, exserta v. inclusa. *Ovarium* inferum, tri-biloculare. *Ovula* in loculis plura, ex angulo centrali pendula, anatropa. *Stylus* filiformis; *stigma* capitatum. *Bacca* carnosa, trilocularis v. dissipimentis demum obliteratis unilocularis, oligosperma. *Semina* inversa, crustacea. *Embryo* in axi albuminis carnosi brevis, orthotropus; *cotyledonibus* ellipticis, *radicula* umbilico proxima, supera.——Frutices *erecti v. scandentes, in hemisphæræ borealis regionibus extratropicis temperatis et calidioribus obvii, inter tropicos Asiæ et Americæ rari;* foliis *oppositis, petiolatis v. sessilibus, interdum connatis, integris v. in eadem specie subruncinatis,* floribus *axillaribus varie dispositis.*—Endl. gen. no. 3337.

§ ISIKA, *Adans.*—Baccæ in unicam biumbilicatam omnino concretæ. Caules erecti, dumosi.—*Endl. l. c.*

L. *discolor*; glaberrima, foliis petiolatis oblongis acutis subtùs glaucis, pedunculis foliis dimidio brevioribus, calyce 5-dentato glandulis ciliato, corollæ tubo hinc valdè convexo discolore limbo multò breviore.—*Lindl. in Bot. Reg.* 1844. *sub t.* 33.

Among the plants collected under the common name of Lonicera, is a set of species remarkable for the ovaries of two contiguous flowers so entirely growing together, that to the eye there seems but one; and when they fruit, the berry which they bear has all the appearance of being simple, until the eye rests upon the calyx, which is found to be double. These curious shrubs Adanson separated from Lonicera, under the name of ISIKA, and it is, we think, to be regretted that his views have not been followed. We shall not, however, disturb the existing nomenclature, which may serve the purpose. The plant now figured, is one recently introduced from India, through the East India Company, by whom the

GASTROLOBIUM villosum.

Shaggy Gastrolobe.

DECANDRIA *MONOGYNIA*.

Nat. ord. FABACEÆ. (LEGUMINOUS PLANTS, *Vegetable Kingdom, p.* 544.)

GASTROLOBIUM, R. Br.—*Calyx* campanulatus, apice quinquefidus, bilabiatus. *Corollæ* papilionaceæ *petala* breviter unguiculata; *vexillum* late orbiculatum, emarginatum, *alas* oblongas paullo superans; *carina* oblonga, obtusa, alis parum brevior. *Stamina* 10, libera, filamentis glabris. *Ovarium* stipitatum, biovulatum. *Stylus* filiformis, adscendens; *stigma* tenue, subcapitatum. *Legumen* stipitatum, ovoideo-subglobosum, ventricosum. *Semina* strophiolata.——Fruticulus *Novæ-Hollandiæ;* foliis *simplicibus, ternatim v. quaternatim verticillatis*, stipulis *setaceis*, inflorescentia *terminali, breviter racemosa*, bracteolis *nullis*.—Endl. gen. no. 6443.

G. *villosum;* foliis oppositis ovato-lanceolatis obtusis setaceo-mucronatis margine undulato crispis basi cordatis subtus ramisque molliter villosis, bracteis lanceolatis acutis fuscis deciduis calyce subbilabiato longioribus, ovario longiusculè stipitato villoso.—*Bentham in Lindley's Swan River plants, p.* xiii. *Plantæ Preissianæ*, 1. *p.* 69.

This fine orange-flowered shrub is a native of the Swan River Colony, where it would seem to be common. It was first found by Mr. James Drummond, from whose specimens it was described by Mr. Bentham. We also have it from Mr. Mylne. According to Preiss, it is a decumbent shrub, found in muddy pebbly places, in woods near "Halfway House" in Darling's range of mountains.

Its introduction to notice, in the gardens of this country, is owing to Messrs. Lowe and Co., by whom it was flowered in May last. It promises to be a very pretty greenhouse plant, and will require the same kind of treatment as Chorozemas, and similar plants. It should be potted in a mixture of sandy loam, peat, and plenty of silver-sand. In summer, the plant should be placed out of doors in a cool situation, and where it can be protected from heavy rains and rough winds. In winter it should be kept either in

a cold pit, out of the reach of frost, or in an airy and cool greenhouse; for it must be observed, that fire heat in winter is more injurious to New Holland plants than a few degrees of frost.

It may be increased by cutting, but the best plants are raised from seeds, which in most species are freely produced when the plants attain size.

Fig. 1. represents the calyx; 2. a section of the ovary.

OPHRYDES Græcæ.

Grecian Ophryses.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

OPHRYS.—L.

1. Ophrys tabanifera.

O. ***tabanifera*** (Willd.) ; **labello bigibboso ovato acuto tripartito villoso : lobis lateralibus deflexis acutis intermedio ovato, petalis ciliatis acutis.—*Lindl. Gen. & Sp. Orch. p.* 375. with its synonyms of O. *picta, pulla, hiulca, œstrifera, distoma, bombyliflora.***

2. Ophrys ferrum equinum.

O. ***ferrum equinum*** (Desf.) ; **labello oblongo subquadrato apicolato violaceo maculâ albâ hippocrepicâ in medio, sepalis roseis.—*Lindl. Gen. & Sp. Orch. p.* 377.**

The two species of Ophrys here represented were collected by our lamented correspondent the Dean of Manchester, were figured a day before his death, and were to have been illustrated by himself.

His brief and imperfect memorandum tells us that O. *tabanifera* was found by his collector Vrioni, near Clarentia, a low and swampy place, "whence the Dukes of Clarence took their title, it is said, why I know not." O. *ferrum equinum*, so called because of a horse-shoe mark on the lip, is from Corfu, where it was gathered by himself on the summit of the Garouna Pass.

In many respects these species resemble each other ; but *tabanifera* has a three-lobed lip, *ferrum equinum* an entire one ; in *tabanifera* the petals are reflexed, and pale greenish chocolate, in *ferrum equinum* patent, and rosy purple. Both

have a downy column and hairy petals. The anther lobes of *tabanifera* are scarlet, of *ferrum equinum* yellow ; and at the base of the column in *tabanifera* is a pair of teeth, which are missing in *ferrum equinum*.

2

DENDROBIUM Kuhlii.

Kuhl's Dendrobe.

GYNANDRIA *MONOGYNIA.*

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

DENDROBIUM.—Supra passim.

Sect. PEDILONUM (Blume, Sect. 2.) *Stems erect. Racemes lateral. Lateral sepals united into a pouch, with which the base of the lip is entirely coherent, without any articulation.*

D. *Kuhlii ;* foliis ovali-oblongis acutis subseptemnerviis apice inæqualibus, racemis brevibus plurifloris, sepalis ovatis patulis petalis latioribus, labelli limbo lineari spathulato acuto imberbi, calcare crasso ovarii fere longitudine.—*Lindley Gen. & Sp. Orch. no.* 58.

Pedilonum Kuhlii, *Blume Bijdr. p.* 321.

This handsome plant is not unworthy to be placed by the side of its near ally, the beautiful D. secundum, from which it differs in having larger flowers in short lateral few-flowered horizontal racemes. They are of a bright rose colour, and retain their freshness longer than is usual in this genus.

For its introduction we are again indebted to the enterprise and good management of Messrs. Veitch and Co. of Exeter, to whom it was sent from Java by Mr. Thomas Lobb. It is No. 356 of his sets of dried specimens, which we may without exaggeration say, are scarcely rivalled for their beautiful preparation, or for the skill and taste with which hey hav e been selected.

Our drawing was made from materials supplied by Messrs. Veitch in October, 1845. Fig. 1. represents the column and spur cut open to shew the lip ; Fig. 2. is a front view of the lip itself.

1
2

EDGWORTHIA chrysantha.

Golden Edgworthia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. THYMELACEÆ. (DAPHNADS, *Lindley's Vegetable Kingdom, p.* 530.)

EDGWORTHIA, C. A. Meyer.—*Squamæ* 0 perigynæ; una hypogyna emarginata. *Stamina* 8, biserialia. *Ovula* solitaria. *Stigma* elongatum, subulatum. *Nux* fibrosa.——Flores *capitati.*

E. *chrysantha;* foliorum costis minutissimè pilosis, calycis tubo clavato sericeo-villoso.—*Lindley in Journal of Horticultural Society, vol.* 1. *p.* 148.
Daphne papyrifera, *Siebold in act. Batav.* xii. 24. *Hasskarl Cat. hort. Bogor.* 92.
Edgworthia papyrifera, *Zuccarini Fl. Japon. sect. alt. p.* 75. (no date.)

This shrub was found by Mr. Fortune in Chusan, and by him was sent to the Horticultural Society in April, 1845. It flowered for the first time in February, 1847, in a greenhouse.

In the Journal of the Horticultural Society it is described as "a dwarf soft-wooded plant, throwing up rod-like dull green stems from its base, and bearing the leaves exclusively near their ends. The leaves are about eight or nine inches long, oblong-lanceolate, stalked, very dull green, and covered with fine hairs, so small and closely pressed to the surface that the naked eye fails to discern them. The flowers have not yet been produced in England; but Mr. Fortune's Chinese drawings and specimens shew them to be bright golden yellow, something less than an inch long, covered with exceedingly thick hair on the outside, and collected into balls about two inches in diameter at the ends of the shoots. He adds, that they are sweet-scented, and appear in Chusan in July. The limb of the calyx is divided into four smooth ovate obtuse lobes, the tube contains eight sessile stamens, arranged in two lines, and with the anthers

turned inwards. The ovary is covered with thick hairs, oblique, one-celled, with one suspended ovule, and a little emarginate scale on the upper side of its base. Its style is thread-shaped, and loses itself in a subulate stigma.

"The species is allied to Edgworthia (or Daphne) Gardneri, a Nepal plant with a similar habit, from which it differs in having longer and more slender flowers, larger flower-heads, and a much more silky hairiness on the outside of the flower.

"It is a greenhouse or half-hardy shrub; it grows freely in a compost of three parts sandy-loam, and one of turfy-peat. A free drainage is necessary; for although it requires an ample supply of water during the summer months, it is liable to damp off if this point is not properly attended to. For a few weeks in winter very little water is required. It will probably be multiplied without difficulty from cuttings of young wood. Being sweet-scented and a plant of free growth, it may be expected to prove a useful addition to our greenhouse or half-hardy plants belonging to the natural order of Daphnads."

In order to induce it to flower, the Chinese bind the stems so as to form a loop, as is represented in our plate; and this practice has been followed with success in the garden of the Horticultural Society, where it has now flowered in the month of May.

According to a memorandum from Prof. Zuccarini, published in the London Journal of Botany, v. 6. p. 45, this is the *Daphne papyrifera* of Siebold. We have never seen the Batavian Transactions in which that name was given; but the description of it by Prof. Zuccarini leaves no doubt about the fact: there being no date to the latter, we are unable to say where the priority of nomenclature lies. Edgworthia chrysantha was published on the first of March, 1846.

In the same work it is said that our Daphne Fortuni is the D. *Genkwa*, of Siebold and Zuccarini; but we believe it to be distinct.

EXOGONIUM Purga.

The true Jalap plant.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CONVOLVULACEÆ. (BINDWEEDS, *Vegetable Kingdom, p.* 630.)

EXOGONIUM.—*Sepala* 5. *Corolla* tubulosa. *Stamina* exserta. *Stylus* 1. *Stigma* capitatum, bilobum. *Ovarium* 2-loculare, loculis 2-ovulatis.——Herbæ *aut* suffrutices *volubiles* America *ortæ.*—Choisy in DeCand. Prodr. ix. 346.

E. *Purga;* foliis sagittato-cordatis acuminatis glabris, pedunculis subunifloris petiolorum longitudine, limbo corollæ lato plano.
E. Purga, *Benth. pl. Hartw.* 46.
Ipomœa Purga, *Wenderoth Pharmac. centralbl.* 1. 457. *Lindl. Fl. med.* 809. *Choisy, l. c. Bot. Reg.* 1839. *misc.* 136.
Ipomœa Schiedeana, *Zuccarini Flora,* 1831. *p.* 801.
Convolvulus officinalis, *Pelletier.*

This is the true Jalap plant; that is to say, the species of Bindweed which inhabits woods near Xalapa, in Mexico, whence the name, and where the tuberous purgative roots are collected, dried, and sent to Europe for medical use. The plant now figured was obtained on the spot by Mr. Hartweg, for the Horticultural Society, with whom it flowered in June, 1846.

But it would be a great mistake to suppose, that Jalap, or a substance analogous to it, is not obtained from other plants. We have already shewn that the Ipomœa batatoides, figured in our Volume for 1841, t. 36, is another, called the *Purga Macho;* and it appears from an unpublished letter of Don Juan de Orbigozo, that a hairy leaved plant bears the same name. In truth, the whole order of Bindweeds possesses the properties of Jalap in a more or less marked degree. If we do not employ the creeping roots, or the seeds, of the species that grow in our hedges, it is only because exotic plants are more active.

M. Choisy excludes this plant from the genus Exogonium, because its corolla has a flat limb: but if the cylindrical tube of the corolla, and projecting stamens, are not the marks by which that genus is known from Ipomœa, we are at a loss to know how the genera are to be kept apart.

In cultivation this should be regarded as a stove herbaceous climber, which grows freely in a mixture of sandy loam and leaf-mould in equal portions.

After flowering it should be allowed to become gradually dry, and eventually may be placed (pot and soil) in a cellar or similar situation, where it is out of the reach of damp and frost, and where it may remain until the following April, when it should be again fresh potted and started in heat. It flowers late in the autumn, and requires a stove heat at that time, otherwise the flowers will not expand.

It is easily increased by cuttings of the young stems put in sand, and treated in the usual way.

EPIDENDRUM pyriforme.

Pear-shaped Epidendrum.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom*, *p.* 42.)

EPIDENDRUM.—L.

Sect. ENCYCLIUM. *Div.;* lip 3-parted, with the middle lobe rounded.

E. *pyriforme* (Lindl. in Bot. Reg. 1847. sub. t. 10.); (Encyclium: labello tripartito: lobo medio rotundato) pseudobulbis obpyriformibus aggregatis diphyllis, foliis coriaceis lanceolatis acutis scapo subbifloro longioribus, sepalis petalisque lanceolatis acutis, labelli lobis lateralibus obtusis integerrimis intermedio subrotundo glabro picto callis 2 maximis apice subliberis in unguem.

This very pretty little species was imported from Cuba by Messrs. Loddiges, with whom it flowered in January last. The leaves are unusually thick and fleshy, about four inches long, on little pseudo-bulbs, which look like inverted pears. Notwithstanding its diminutive stature, the flowers are fully $2\frac{1}{2}$ inches in diameter, with reddish yellow sepals and petals, and a pale straw-coloured lip veined with crimson.

We do not find it in any of our dried collections; it does not occur among the Cuba plants gathered by Mr. Linden, and we are ignorant of the history of its discovery.

Fig. 1. represents its lip spread open, to shew the form of the calli, which scarcely adhere to the lip until they reach the re-entering angles at its sides.

VIBURNUM plicatum.

Crimped Gueldres Rose.

PENTANDRIA *TRIGYNIA*.

Nat. ord. CAPRIFOLIACEÆ. (CAPRIFOILS, *Vegetable Kingdom, p.* 766.)

VIBURNUM.—Supra t. 43. *hujus voluminis.*

V. *plicatum ;* foliis e basi rotundata ovatis vel ovato-suborbicularibus cuspidatis argutè serratis densè venoso-costatis et plicatis superne glabris subtus tomentosis, floribus radiantibus, in planta culta omnibus sterilibus dilatatis et in cymam globosam congestis.

V. plicatum, *Thunberg in Linn. Trans.* ii. *p.* 322. *Siebold and Zuccarini, Fl. Japonica,* i. *p.* 81. *f.* 38.

This, which is another of the plants procured for the Horticultural Society, is described in their Journal "as a handsome deciduous bush, bearing some resemblance to the N. American Viburnum dentatum. The leaves are broad, coarsely serrate, somewhat plaited, dark green, narrowed to the base, and furnished with an abrupt point (cuspidate). The flowers are white, in round heads, of the size and with the appearance of the "double" Gueldres Rose.

"Mr. Fortune says that this plant is a native of the northern parts of the Chinese Empire, and was found cultivated in the gardens of the rich, by whom it was much admired. When full grown it forms a bush eight or ten feet high. It is a most profuse bloomer, forming numerous heads of snow-ball flowers, like the common Gueldres Rose. It will, doubtless, prove perfectly hardy in England; and, on account of its neat habit, will probably become a great favourite in our gardens."

This does not entirely agree with the account given by Siebold and Zuccarini, who speak of it thus:—"This Viburnum is one of the most beautiful plants that are cultivated in

Japan. Its name, *Satsuma Temari*, indicates that it inhabits Satsuma, the most southern province of Kiusia (31° N. L.); it was probably in the beginning imported from China. At the present time it is seen in every garden. Its balls of white sterile flowers give it the appearance of the Gueldres Rose; its habit, and broad oval plaited (crimped) leaves, are more like those of the Wayfaring Tree (*Viburnum Lantana*), but it only grows from four to six feet high.

3 2

AMOMUM vitellinum.

Orange-yellow Amomum.

MONANDRIA *MONOGYNIA.*

Nat. ord. ZINGIBERACEÆ. (GINGERWORTS, *Vegetable Kingdom, p.* 165.)

AMOMUM, L.—*Calyx* tubulosus, apice trifidus. *Corollæ* tubus brevis, limbi laciniæ exteriores laterales postica angustiores; interiores laterales nullæ; *labellum* maximum, explanatum. *Filamentum* complanatum, lateribus apiceque ultra antheram muticam productum, lobulis duobus auctum, lobo terminali bifido. *Ovarium* inferum, triloculare. *Ovula* in loculorum angulo centrali plurima, horizontalia, anatropa. *Stylus* filiformis, inter antheræ loculos receptus; *stigma* infundibuliforme. *Capsula* sæpius baccata, trilocularis, loculicido-trivalvis. *Semina* plurima, arillata.——Herbæ *inter tropicos* veteris orbis *indigenæ, species Americanæ dubiæ;* radicibus *articulatis, repentibus,* foliis *bifariis, membranaceis, vaginis fissis,* inflorescentia *radicali, spicata, laxè imbricata.*—Endl. gen. 1626.

A. *vitellinum;* caulescens, glabrum, foliis ovalibus, spicâ oblongâ sessili laxiusculâ, labello oblongo obtuso dentato, antheræ appendice petaloideâ tripartitâ laciniis undulatis laceris intermediâ duplo majore.—*Lindley in Journal of Horticultural Society, vol.* 2. *p.* 245.

The history of this plant is unknown. It flowered in the garden of the Horticultural Society in May last, and is supposed to have been received from the East India Company.

In the Society's Journal it is described as a plant about two feet high, with oblong leaves, a little wavy, pale green, slightly stalked above a broad thin-edged petiole whose upper free end is rounded. The flowers are deep yellow, strongly veined with red, and grow in a short close spike, sessile among the uppermost leaves. The back petals are short, with sharp teeth; the lip is oblong, coarsely and irregularly toothed, and slightly three-lobed. The crest of the anther is three-parted and jagged, the lateral divisions being about half the size of that in the middle. The anther itself is spurless. About six ovules are found in each cell of the ovary.

It proves to be a stove perennial, requiring plenty of moisture and heat during its growth, but afterwards to be kept nearly dry. It flourishes in a mixture of sandy loam and decayed leaf-mould, and is easily increased by dividing the old plants when dormant. It flowers freely in April and May, and is useful, notwithstanding its want of beauty, because it will grow in any shady place associated with Ferns.

Fig. 1. represents the lip bent forcibly down, the filament, anther, style and stigma; 2. is a perpendicular section of the ovary, calyx and corolla; 3. shews the structure of the ovary when cut across.

EPIDENDRUM alatum.

Winged Epidendrum.

GYNANDRIA *MONOGYNIA.*

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)
EPIDENDRUM. Subgenus ENCYCLIUM, *Lindl.*

E. *alatum* (Bateman Orch. Mex. t. 18. *Epid. calocheilum,* Hooker in Bot. Mag. t. 3898.); pseudobulbis ovato-oblongis diphyllis, foliis ensiformibus obtusis coriaceis obsoletè striatis paniculâ multiflorâ brevioribus, sepalis petalisque lineari-oblongis spathulatis uniformibus patentibus, labello profundè trilobo basi intùs bicarinato lobis lateralibus eroso-dentatis rotundatis intermedio oblongo undulato multò brevioribus omnium venis callosis et verrucosis, columnæ alis rotundatis.

Of this once rare plant the gardens now abound in varieties, owing to the large importations from Guatemala, of which it is a native. The specimen here figured flowered in the conservatory of Mr. Rucker, in July, 1846.

Its pale colour, and the peculiar markings upon its lip, at once distinguish it. These markings consist of reddish warts, plates, scales or elevations, of various forms, arranged upon the veins, and therefore spreading from the base.

We find nothing among the variations of sufficient importance to deserve special notice.

The species thrives most when suspended from the roof of the house, and fastened to a block of wood with a coating of sphagnum. It is increased by division when the plant begins to grow, blooms in Mav, and remains a long time in flower if the atmosphere is kept rather dry and cool at that time.

October, 1847.

HOYA campanulata.

Bell-flowered Hoya.

PENTANDRIA *MONOGYNIA.*

Nat. ord. ASCLEPIADACEÆ. (ASCLEPIADS, *Vegetable Kingdom, p.* 623.)

HOYA, R. Br.— *Calyx* quinquepartitus. *Corolla* rotata, quinquefida. *Corona staminea* pentaphylla, foliolis depressis, carnosis, angulo interiore in dentem antheræ incumbentem producto. *Antheræ* appendice membranacea terminatæ. *Pollinia* basi affixa, conniventia, compressa. *Stigma* muticum v. subapiculatum. *Folliculi* læves. *Semina* plurima, ad umbilicum comosa. ——Suffrutices *in Asia et Nova-Hollandia tropica indigeni, volubiles v. decumbentes, sæpe radicantes;* foliis *oppositis, carnosis v. membranaceis,* umbellis *interpetiolaribus, multifloris.*—Endl. gen. 3501.

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§ II. *Leaves coriaceous, transversely veined, green.*—Decaisne.

H. *campanulata;* volubilis glabra, foliis ovalibus acuminatis breviter petiolatis, pedunculis petiolis longioribus, umbellâ multiflorâ, corollâ campanulata 5-dentatâ.
Hoya campanulata, *Blume Bijdragen, p.* 1064.
Physostelma ? campanulatum, *Decaisne in DeCand. prodr.* 8. 633.

This very curious plant is a native of Java, where it was found by Dr. Blume, who describes it as an inhabitant of mountain thickets on the west of the island; it is called by the natives *Tjunkankan*, and flowers all the year round. Its introduction is due to Messrs. Veitch, of Exeter, to whom it was sent by Mr. Thomas Lobb, and from whom we received the specimen now represented in April, 1846.

Its habit is altogether that of a thin-leaved Hoya, but its peculiarly formed corolla gives it a different appearance. On this account M. Decaisne removes it to the genus Physostelma, but as he does so doubtfully, and as it wants the bladdery coronet which is proper to that genus, giving it its name, it does not seem desirable that the current nomenclature should be disturbed.

It requires the same treatment as Hoya carnosa.

ABELIA floribunda.

Florid Abelia.

PENTANDRIA *MONOGYNIA.*

Nat. ord. CAPRIFOLIACEÆ. (CAPRIFOILS, *Vegetable Kingdom, p.* 766.)

ABELIA, *R. Br.*—*Calyx* tubo cum ovario connato, lineari-oblongo, compressiusculo, hinc uninervi inde quinquenervi, apice in collum subangustato, limbi superi quinquepartiti laciniis foliaceis, spathulato-oblongis, persistentibus. *Corolla* supera, infundibuliformis, limbi quinquefidi patentis laciniis ovatis obtusis, subæqualibus. *Stamina* 4, corollæ tubo inserta, subdidynama, inclusa v. breviter exserta. *Ovarium* inferum, triloculare, loculis duobus pluriovulatis, abortientibus, tertio uniovulato fertili. *Ovula* angulo centrali loculorum inserta, sterilium uniseriata, inferiora pendula, supremum adscendens, loculi fertilis pendulum, anatropum. *Stylus* subexsertus : *Stigma* depresso-capitatum, indivisum. *Bacca* coriacea, exsucca, calycis limbo coronata, trilocularis, loculis duobus sterilibus minoribus, tertio fertili monospermo. *Semen* inversum, subcylindricum. *Embryo* in axi albuminis carnosi brevis, orthotropus ; cotyledonibus obtusis, radicula umbilico proxima, supera.——Frutices chinenses *et* indici, *decumbentes v. erecti, debiles, glabri ;* foliis *oppositis, petiolatis, dentato-crenatis, pedunculis modo axillaribus tricho-tomis v. trifidis, modo terminalibus indivisis, involucro uni-bi-multifloro, foliolis sex vel pluribus.*—Endl. genera, no. 3334.

A. *floribunda ;* fruticosa, erecta, foliis brevi-petiolatis ovatis obtusis reticulatis glabris ciliatis, pedunculis subterminalibus axillaribus 1-3-floris bibracteolatis, involucro minimo 1-5-dentato, calycis laciniis lineari-oblongis foliaceis ciliatis, corollis nutantibus (magnis) longe tubulosis, tubo inferne constricto superne dilatato intus hirsuto, limbi laciniis rotundatis subæqualibus patentibus, filamentis hirsutis styloque exsertis.—*Hooker in Bot. Mag. t.* 4316.

A. floribunda, *Decaisne in Van Houtte's Flor der Gewachshaus und Gärten, v.* 2. *t.* 4. *Walpers Repertorium Botanices Systematicæ, v.* 6. *p.* 3.

Vesalia floribunda, *Mart. & Galeotti Bulletin de l' Academie de Bruxelles,* xi. *p.* 31.

The discovery in Mexico of one, or perhaps three, species of Abelia, is a puzzling fact for botanical geographers, and among the last that could have been anticipated. It is, therefore, not to be wondered at that the first botanists who examined this species should have failed to remark its identity

with the Asiatic genus. It is certainly an Abelia, as M. Decaisne and Sir Wm. Hooker have determined, and the handsomest yet known.

Its introduction to our gardens was through the nursery of Mr. Booth, of Flottbeck, near Hamburgh; he obtained it from Rathsack, a Dane, who was sent to Mexico by the Danish Government, and whose plant, purchased by Mr. Booth in 1842, was named, "*Shrub with red bell flowers; Mirador.*" Sir Wm. Hooker states that it was also found by Galeotti in the Cordillera of Oaxaca and Vera Cruz, and also by Linden on the Peak of Orizaba, at elevations of from 9 to 10,000 feet. It has now become comparatively common in our gardens, and has been figured in the Botanical Magazine.

Our drawing was made in June last, from a specimen furnished by Messrs. Veitch of Exeter. Fig. 1. is a cross section of the ovary.

A very pretty little pendulous shrub, which requires a treatment intermediate between the stove and greenhouse; that is to say, during the growing season it requires to be treated like a stove plant and kept rather moist, but afterwards, when the flowers are over, it should be transferred to the greenhouse. It grows freely in a mixture of sandy loam, peat and leaf-mould, strikes freely from cuttings, and flowers during great part of summer.

RIBES Menziesii.

Menzies' Gooseberry.

PENTANDRIA *MONOGYNIA*.

Nat. ord. GROSSULARIACEÆ. (CURRANTWORTS, *Vegetable Kingdom, p.* 750.)

RIBES, Linn.—*Calyx* tubo cum ovario connato, limbo supero, colorato, pelviformi campanulato v. tubuloso, quinquefido v. rarissime quadrifido, æquali. *Corollæ* petala 5 v. 4 calycis fauci inserta, parva, squamæformia. *Stamina* cum petalis inserta, iisdem numero æqualia et alterna, inclusa. *Ovarium* inferum, uniloculare, placentis duabus parietalibus nerviformibus, oppositis. *Ovula* plurima, pluriseriata, infuniculis brevibus adnato-reclinata. *Styli* 2, distincti v. plus minus connati ; *stigmata* simplicia. *Bacca* calyce emarcido coronata, unilocularis, polysperma v. abortu oligosperma. *Semina* angulata, testa gelatinosa, in rhaphe maturitate libera reclinata, integumento interiori crustaceo, albumini adnato. *Embryo* in basi albuminis subcornei orthotropus, minimus, *radicula* centrifuga.——Frutices *inermes v. spinosi ;* foliis *sparsis, digitato-lobatis v. incisis, petiolo basi dilatato, semiamplexicauli,* pedunculis *axillaribus v. e gemmis erumpentibus uni-trifloris v. racemoso-multifloris,* pedicellis *basi unibracteatis, medio v. apice bibracteolatis,* floribus *virescentibus, albidis, flavis v. rubris, rarissime abortu dioicis.*—Endl. gen. 4682.

§ *True Gooseberries.*

R. *Menziesii ;* ramis hispidis, spinis subaxillaribus ternis rectis, foliis cordatis 5-lobis inciso-serratis obtusis rugosis supra subglabris subtus tomentosis, pedunculis nutantibus 1-3-floris, calycis tubo campanulato laciniis linearibus obtusis reflexis, petalis linearibus erectis filamentis brevioribus, fructu echinato.

R. Menziesii, *Pursh Fl. Am. Sept.* 2. 732.—*DeCand. Prodr.* 3. 478. *Hooker fl. bor. Amer.* 1. 229. *Id. Bot. Beechey,* 141, *and* 345. *Gray & Torrey Fl. of N. Amer.* 1. 545.

R. Menziesianum, *Romer & Schultz Syst.* 5. 507.

R. ferox, *Smith in Rees' Cycl. no.* 26. *DeCand. l. c.*

This little known plant is a hardy shrub, inhabiting various parts of California. Mr. Menzies originally gathered it near Port Trinidad ; Lay and Douglas have found it in other parts of the same country : we have not, however, seen it without prickles, as Messrs. Gray and Torrey describe it ; nor do we understand how it can be compared to R. *stamineum* in point of beauty, for its flowers are small and insignificant.

In gardens it grows from four to six feet high, in any common garden soil, strikes freely from cuttings of the ripe wood in Autumn or Spring, and flowers in May. It has not fruited in this country as far as we know.

Sir James Smith, who published it under the name of R. ferox, without remembering that Pursh had already given it the name it bears, described it thus. "A very fine remarkable species, whose branches are thickly covered with tawny, setaceous, prominent prickles, about a quarter of an inch in length, and armed under each bud with three very strong and pungent awl-shaped ones, an inch long, having sometimes lesser reflexed prickles at their base. The leaves are not unlike our common gooseberries, but more rugose, and densely downy at the back. Flower-stalks solitary, simple, longer than the leaves. Bracteas scattered. Flowers drooping, large and handsome. Calyx three-quarters of an inch long, funnel-shaped, downy and bristly; as far as we can judge from the dried specimens, it seems of a fine crimson; its segments lanceolate, ribbed, erect, full twice as long as the tube. Petals half the length of these segments, erect, pale, obtuse. Stamens the length of the calyx. Anthers large, oblong-heart-shaped, pointed. Germen covered with prominent, glandular bristles, which harden, as the fruit advances, into stiff, sharp spines, so that whatever its flavour may be, it seems perfectly inaccessible, in the common way of eating gooseberries."

ECHEVERIA retusa.

Blunt-leaved Echeveria.

DECANDRIA *PENTAGYNIA*.

Nat. ord. CRASSULACEÆ. (HOUSELEEKS, *Vegetable Kingdom, p.* 344.)

ECHEVERIA, DC.—*Calyx* quinquepartitus, laciniis foliiformibus, erectis. *Corolla* perigyna, quinquepartita, laciniis erectis, crassis, rigidulis, nervo medio incrassato, basi subtrigonis, acutis. *Stamina* 10, imæ corollæ inserta, inclusa. *Squamæ hypogynæ* breves, obtusæ. *Ovaria* 5, libera; unilocularia, ovulis ad suturam ventralem plurimis. *Capsulæ* folliculares 5, in stylos subulatos attenuatæ, liberæ, intus longitudinaliter dehiscentes, polyspermæ.——Frutices *mexicani, carnosi;* foliis *alternis caulinis v. rosulatis subopppositis, integerrimis, enerviis,* floribus *secus rhachin v. secus cymæ ramos sessilibus, coccineis v. flavis.*—Endl. gen. 4621.

E. ***retusa;*** foliis obovato-spathulatis demum sparsis vetustis retusis glaucis crenulatis caulinis lineari-oblongis integerrimis basi solutis, paniculâ densâ subcorymbosâ ramis paucifloris, sepalis linearibus inæqualibus corollâ brevioribus, petalis carinatis acutis basi gibbosis.—*Lindley in the Journal of the Horticultural Society, vol.* 2. *p.* 306.

We learn from the Journal of the Horticultural Society that this species was "raised from seeds, received from Mr. Hartweg in February, 1846, and said to have been collected on rocks near Anganguco, in Mexico.

"This is a dwarf species, not unlike a contracted form of E. Scheerii. Its leaves are originally closely imbricated, but are never truly rosulate, and by degrees separate as the stem lengthens; they are broad at the point, but acute when young, but when old are extremely blunt, and irregularly crenated, as well as bordered with purple. The flower-stem is from nine inches to a foot high, and bears at the very summit a compact panicle of handsome crimson flowers, covered with a delicate bloom, and orange-coloured inside.

"It is a pretty greenhouse, half-shrubby plant, and grows freely in a light mixture of sandy loam with leaf-mould and plenty of sand. It is easily increased by the leaves, rises

from one to two feet in height, and flowers freely from November to April, that is to say, throughout the winter."

Its name has been given it in consequence of the peculiar form of the old leaves; while young they are sharp-pointed; at all times they are bordered with red.

1
2

SACCOLABIUM miniatum.

Orange-red Saccolabe.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)
SACCOLABIUM.—Blume.

S. *miniatum* (Lindl. in Bot. Reg. 1847, sub t. 26) ; foliis distichis imbricatis loratis canaliculatis apice obliquè truncatis, racemis brevibus cylindraceis patentibus, bracteis minimis acutis, sepalis petalisque ovatis acutis patulis, labello lineari obtuso recurvo calcare recto pendulo tereti breviore intus edentato, polliniis albis.

This is one of the prettiest Epiphytes lately introduced, for the gay red orange of its flowers is as rich and pure as in Epidendrum vitellinum. It is, moreover, so compact in its mode of growth, that it can easily be moved from place to place.

It is a Java plant, imported by Messrs. Veitch, and has flowered with both Mr. Rucker and Mr. C. B. Warner. Its blossoms grow in spreading racemes, about ten together, and when worn in the hair have a singularly beautiful effect.

Fig. 1. represents a side view of the column and lip; 2. shews the pollen-masses, which are remarkable for being white.

Our drawing was made from a specimen obligingly supplied by Mr. Rucker in February last.

This, like the true air plants, lives entirely on the humidity of the atmosphere, and should be fastened to a block of wood coated over with sphagnum, to retain moisture whenever the atmosphere happens to become too dry.

It is increased by division when the plant begins to form new roots, and should never be removed from the block when once fastened upon it, by its roots. It is best kept at the warmest part of the house, but not fully exposed to light.

IRIS aurea.

Golden Iris.

TRIANDRIA *MONOGYNIA*.

Nat. ord. IRIDACEÆ. (IRIDS, *Vegetable Kingdom, p.* 159.)

IRIS.—L.

I. *aurea ;* imberbis, foliis ensiformibus scapum pluriflorum squamatum subæquantibus, squamis foliaceis acutissimis imbricatis tubum superantibus, sepalorum laminis ovatis undulatis in ungues stigmata bifida acuta æquantes sensim angustatis, petalis lanceolatis undulatis acutis.

This Iris was raised by Messrs. Whitley and Osborne of Fulham, five or six years ago, from Indian seeds presented to them by Dr. Royle. It was communicated to us last July, with the following note :—

" It flowers very freely, with the habit of Iris ochroleuca, and grows as tall."

Possibly it is merely an Indian form of that species ; but if it be so, it presents points of distinction which render it at least a well-marked variety.

It differs from I. *ochroleuca* in the sepals and petals being more lanceolate and wavy at the edge, and in its bright golden yellow colour. In the former respect it is more like I. *halophila* (Bot. Mag. t. 1131), but the flowers are much larger, and the base of the sepals not more than half as wide.

We do not find any notice of such a plant in the works of Indian Botanists.

It will be an acceptable addition to the list of showy hardy perennials.

November, 1847.

New Orchid.

Vanda *tricolor*; foliis distichis canaliculatis racemo paucifloro longioribus, sepalis coriaceis unguiculatis obovatis obtusis, labello æquilongo trilobo per axin 3-lineato, calcare brevi obtuso, laciniis lateralibus rotundatis intermedio convexo cuneato emarginato latioribus.

Under the name of *Vanda insignis*, a very different plant, this fine Javanese species, has been brought into cultivation by Messrs. Veitch. It has quite the habit of *Vanda Roxburghii*, and its flowers appear in the same manner, but they are larger, have yellow and brown spotted sepals, and a rose-coloured lip, with the lateral lobes rounded, not acute, and colourless. It is nearer *V. Hindsii*, a New Guinea plant, not yet in cultivation; but that species has a long many-flowered raceme, extending as far as the points of the leaves.

As to *Vanda insignis*, no description has yet been published of that plant; but, by the kindness of Dr. Blume, we possess a figure of it, from which we learn that it has a concave, not convex, lip, with very small lateral lobes, and the broad central lobe deeply heart-shaped.

1
2
3

BLETIA Gebina.

Japanese Bletia.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 187.)

BLETIA.—Supra.

B. Gebina (Lindl. in Journ. of Hort. Soc. 2. 307); foliis oblongo-lanceolatis plicatis acutissimis recurvis, racemis strictis 6-9-floris, bracteis oblongis obtusis cucullatis membranaceis citò deciduis, sepalis patulis linearioblongis petalis subundulatis paulò angustioribus, labello trilobo laciniis obtusis intermediâ crenulatâ crispatâ lamellis 5 ad basin usque extensis duabusque brevibus lateralibus pone apicem, clinandrio crenato.

Calanthe Gebina, *Loddiges' Catalogue, No.* 1846.

Our drawing of this novelty was made in the garden of the Horticultural Society, to which it was presented by Messrs. Loddiges in the spring of 1847. It is described in the Journal of the Society in the following terms:—

"Leaves broad, plaited, rising up the stem, from six to eight inches long, or more, and two inches wide, the uppermost acuminate, the lowest obtuse. The flowers are about as large as *Bletia hyacinthina*, from six to eight in a spike, two inches and a half in diameter, nearly white, with a faint tinge of blush. The lip is pale delicate violet, obtusely three-lobed, with seven plates upon its surface, of which two at the side are confined to the middle lobe, and the five others are extended to the base, which is a little stained with yellow."

It is nearly related to *B. hyacinthina*, and, according to Messrs. Loddiges' catalogue, is a native of Japan. No description of it, however, is to be found in books.

It is a terrestrial Orchid, which requires a slight protection from frost, and to be kept rather dry while in a dormant state; afterwards it should be well supplied with

moisture and heat. It grows freely in a mixture of fibry peat and half-decayed leaf-mould, and is increased by dividing the old plants when in a dormant state.

It flowers in April.

Being nearly hardy, it is a desirable plant where there is no stove, as it may be grown in a cold pit kept close during summer.

Fig. 1. represents a view of the upper side of the lip, with its elevated plates; 2. a column; 3. one set of pollen-masses. The latter are entirely those of Bletia, and bear no resemblance to the structure of Calanthe.

TRITONIA aurea.

Golden Tritonia.

TRIANDRIA *MONOGYNIA.*

Nat. ord. IRIDACEÆ. (IRIDS, *Vegetable Kingdom, p.* 159.)

TRITONIA, Ker. Perigonium corollinum superum, subcampanulatum v. tubulosum, limbo sexfido regulari v. subbilabiato, laciniis basi callosis. *Stamina* 3, infra faucem perigonii inserta, subsecunda ; *filamenta* filiformia ; *antheræ* versatiles. *Ovarium* ovatum, teretiusculum, triloculare. *Ovula* plurima, in loculorum angulo centrali biseriata. *Stylus* filiformis ; *stigmata* 3, ligularia, angusta, complicata, integra v. breviter bifida. *Capsula* coriacea, subclavata, trigibba, trilocularis, loculicido-trivalvis. *Semina* plurima, subglobosa. . . . . ——Herbæ *capenses ;* rhizomate *bulboso-tuberoso,* foliis *collateralibus ensatis,* caule *junceo, tereti, gracili, simplici v. ramoso,* floribus *spicatis, sæpius resupinatis.*—Endl. gen. 1242. *Sub Montbretia.*

Tr. *aurea (Pappe ined.) ;* caule ramoso, spicis paniculatis flexuosis multifloris, perianthio regulari armeniaco unicolore laciniis ovalibus tubo longioribus sepalinis minoribus, staminibus candidis rectis perianthii stylique longitudine.

This beautiful plant is a native of Caffraria, whence it was brought by Mr. James Backhouse, the eminent nurseryman at York. He informs us that it is the Tritonia aurea of Mr. Pappe, who, however, does not appear to have published any account of it. We do not wish to disturb the name, because, although it may not properly belong to the genus Tritonia, yet, in the absence of any good revision of the genera of Irids, it appears to be as near Tritonia as anything else. Mr. Backhouse mentions that Dr. Harvey considers it nearer Anomatheca ; but it has not the irregular flowers of that genus.

At all events it is a very fine thing, remarkable for the rich apricot-colour of its large Ixia-like flowers, and for the abundance with which they are produced.

We are unacquainted with the foliage and natural habits of the species, but we presume that it resembles the African Gladioles in manner of growth, and in the treatment which

it demands; except that, as it is a native of the northern districts of the Cape Colony, it may be expected to be more tender than many of the Irids from the same Colony.

Fig 1. represents a cross section of the ovary.

The accompanying figure was made from a specimen exhibited to the Horticultural Society in September last, when a silver medal was awarded to it? ?

DENDROBIUM cretaceum.

Chalk-white Dendrobe.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 187.)

DENDROBIUM.—Supra passim.

§ EUDENDROBIUM. *Stems slender; leaves thin and flat; flowers in pairs, or threes, opposite the leaves.* (Grastidium, *Blume.*)

D. *cretaceum;* foliis lanceolatis apice oblique emarginatis obtusiusculis, floribus solitariis (?), sepalis lineari-lanceolatis patentissimis obtusiusculis, labello subrotundo indiviso cucullato fimbriato-dentato utrinque pubescente basi foveat et obsoletè trilamellato, mento brevi obtuso.

Several plants of this new Dendrobe have appeared in gardens during the last summer, in consequence of its having been sold by Messrs. Veitch, who received it among Mr. T. Lobbs' Moulmein collections, and who communicated it to us in July last.

It is a very distinct species, remarkable for the dull chalky whiteness of its flowers, which are, nevertheless, neatly pencilled with crimson on the lip; this is owing to the whole surface of the lip, inside and outside, being covered with a short close white fur. It appears to possess the additional peculiarity of bearing its flowers singly, not in pairs; at least the wild specimens which were communicated to us by the late Mr. Griffith, from Mergui and the Khasiya hills, are in that state, as well as the cultivated plant.

Fig. 1. represents the inside of the lip, near the base of which is a small honey pore, and above the pore three obscure elevated lines.

New Orchid.

Odontoglossum (Leucochilum) *maxillare;* sepalis lanceolatis acutis petalisque latioribus sanguineo-maculatis, labello ovato acuto integro basi maculato appendice baseos maximâ concavâ carnosâ glabrâ luteâ extus bilamellatâ columnæ apteræ ferè longitudine.

We have only seen one flower of this beautiful plant, which might at first sight be mistaken for O. *Cervantesii.* It is, however, readily known by its wingless column, and especially by the presence of a very large yellow appendage, seated at the base of the lip, and scarcely shorter than the column. Such an appendage exists in all the Toothtongues, but it is usually inconsiderable, and never to be compared in size with this. We are unacquainted with the native country of this species; but its great resemblance to O. *Cervantesii, nebulosum, Rossii,* &c. indicates Mexico. The specimen now described was received from C. B. Warner, Esq. in September last.

2

1

ERIA convallarioides; β major.

The close-headed Woolwort; a large variety.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom*, *p.* 187.)

ERIA.—Supra passim.

E. *convallarioides* (Lindl. in Wall. Cat. no. 1975. Gen. & Sp. Orch. no. 25. Bot. Reg. 1841. t. 62. *Pinalia*, Lindl. orch. scel. n. 71. p. 23. c. ic. *Pinalia alba*, Hamilton mss. apud Don Prodr. *Octomeria spicata*, Don. Prodr. 31. *Octomeria convallarioides*, Wallich in ic. Bibl. Anglo-Indicæ, n. 1141); caulibus compressis junioribus densè et laxè vaginatis, foliis oblongo-lanceolatis multinerviis, racemis densissimis oblongis cernuis breviter pedunculatis, floribus subglobosis leviter pubescentibus, labello subcordato ovato acuto inappendiculato.

Var. *β. major;* caulibus duplo majoribus, spicis longius pedunculatis, floribus clausis globosis.

When we formerly published this species it exhibited little of the beauty found in the variety now made known. The old sort is indeed hardly to be recognized in the beautiful thing which is represented on the accompanying plate. The oblong heads of flowers are of the purest ivory white, which is rendered still purer by the presence of small brownish bracts at their base. The surface, too, of every flower is so polished as to resemble that of white cowries or similar shells.

We are indebted for the accompanying figure to T. Twisden Hodges, Esq., who informs us that, under the care of his present gardener, the plant has become still larger and finer. It is distinguished from the original sort, not only by its much greater stature, but by the flowers being nearly closed, and almost globose, and by the spikes having much more evident stalks; the slight hairiness found in the original is here entirely absent.

Fig. 1. Represents a flower separated from the spike; 2. The column and lip.

AQUILEGIA leptoceras.

Slender-horned Columbine.

POLYANDRIA *TRIGYNIA*.

Nat. ord. RANUNCULACEÆ.

AQUILEGIA.—L.

A. *leptoceras;* calcaribus rectis lamina truncata duplo longioribus, staminibus lamina petalorum paulo longioribus, stylis stamina paulo superantibus, sepalis ellipticis stamina stylosque excedentibus, cyamiis (5) glaberrimis apice divergentibus, seminibus nitidulis.—*Fisch. & Meyer in Linnæa*, 12. *litteraturbl.* 153.

Accedit foliis et calcaribus ad Aq. canadensem, *sed sepalis dilatatis stamina stylosque excedentibus, ovariis glaberrimis aliisque notis satis diversa; ab* A. sibirica *haud ægre dignoscitur calcaribus rectis, interdum obliquis, sed nunquam hamatis, cyamiis apice divergentibus, foliis in lacinias angustiores dissectis, etc.; ab* A. parviflora, *nostra species nectariorum lamina plana* (*in* A. parviflora *cucullata*) *præter alias notas, diversissima. Flores magnitudine et forma* A. vulgari (*si calcaria elongata recta prætermittis*) *similes, pulchre cærulei, petalorum lamina apice flavescens.*—F. & M. l. c.

This very pretty plant has been raised in the garden of the Horticultural Society, from seed received from Dr. Fischer in 1846; and is thus described in the Society's Journal, Vol. 2, p. 314:—

"A dwarf herbaceous plant, not growing more than 9 inches high, with slender purplish green stems thinly coated with scattered hairs. The leaflets of the triternate leaves are wedge-shaped, rounded, with about 3 lobes at the end. Each stem bears one or two flowers, on slender pedicels rather more than 2 inches long. The flowers are a pale bright violet, with the tips of the sepals greenish, and of the short petals a clear bright straw-colour.

"It is a native of Siberia, beyond the lake Baical, according to Messrs. Fischer and Meyer, who distinguish it from Aquilegia canadensis by its dilated sepals longer than the

petals and stamens; from A. sibirica, by its straight or oblique but never hooked spurs; and from A. parviflora by the flat petals.

"It is found to be a hardy perennial, growing best in a mixture of light sandy loam and a little leaf mould. It is increased freely by seed sown as soon as ripe. It must be considered a neat and very pretty plant, well suited for rock-work."

STENORHYNCHUS cinnabarinus.

Cinnabar Stenorhynchus.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

STENORHYNCHUS, Rich. Flores ringentes, cylindracei. *Sepala* colorata basi gibba ; dorsale petalis agglutinatum ; lateralia labello supposita et basi in saccum connata. *Labellum* anticum, apice angustatum, basin versus dilatatum, columnam amplectens eique agglutinatum, basi ipsa intus sæpius biconvexum, callis orbatum. *Columna* teres, elongata, in pedem cui labellum annectitur extensa ; stigmate prominente ovato ; rostello subulato corneo persistente. *Anthera* dorsalis, acuminata, bilocularis ; clinandrio utrinque marginato aut alato. *Pollinia* 2, pulverea, bipartita, glandulæ linearis ope colligata.——Herbæ *terrestres* radicibus *fasciculatis*. Folia *radicalia, raro caulina, lata, nunc hysteranthia*. Scapus *laxe vaginatus*. Spicæ *imbricatæ, densæ*, bracteis *magnis coloratis*. Flores *sæpius pubescentes speciosi*. Lindl. gen. & sp. Orch. p. 476.

S. *cinnabarinus* (Lindl. gen. & sp. Orch. p. 479 ; *Neottia cinnabarina*, Llave nov. veg. p. 3) ; foliis oblongo-lanceolatis acutis, scapo piloso, spicâ conico-thyrsoideâ compactâ, bracteis lanceolatis subherbaceis floribus pilosis brevioribus, sepalis petalisque lineari-lanceolatis acuminatis apice patentibus, labello conformi glabro basi angustato canaliculato.

For the knowledge of this rare plant we are indebted to Messrs. Loddiges, who received it from Mexico, and flowered it in July last.

According to Messrs. Llave and Llexarza, the species grows in various places in the west of Mexico, where it is called by the country people *Cutsis*.

The dull olive green of the bracts belonging to its large compact spike, the vermilion red of the flowers externally, and the bright yellow of the inner face of their narrow spreading points give them an appearance unusually gay among these terrestrial species.

Fig. 1. represents the column, with the lip forced downwards so as to shew its inner face ; right and left are two marginal scars shewing where the lip grows to the column.

ONCIDIUM amictum.

The Frilled Oncid.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom*, *p.* 173.)
ONCIDIUM Swartz.

Sect. EUONCIDIA, Heteranthia, tetrapetala, macropetala.

C. *amictum;* pseudobulbis elongato-ovatis diphyllis, foliis oblongis pergameneis basi angustatis, scapo (maculato) foliis longiore, paniculâ racemosâ densâ multiflorâ cernuâ, sepalis lateralibus apice tantum liberis, labello obcuneato bilobo auriculis baseos ciliatis apice dilatatis, cristæ tuberculis duobus maximis acutis divergentibus a fronte duobus posticis lateralibus obtusis, columnæ alis oblongis clinandrioque margine membranaceo plicato ciliatis.

A native of Brazil, whence it was received by Messrs. Loddiges, with whom it flowered in April, 1847. Its large yellow flowers more or less spotted in many parts with rich brown, give it a very handsome appearance.

It is nearly allied to O. *Gardneri*, the character of which is repeated below. It differs from that species in having an inversely wedge-shaped lip, much larger basal lobes, only two pair of tubercles on the crest, large column wings, and an anther-bed, surrounded as it were by a membranous frill. Fig. 1. shews the appearance of this crest.

O. Gardneri (Lindl. in Lond. Journ. Bot. 2. 662.); floribus paniculatis, sepalis oblongis obtusis lateralibus semiconnatis petalis duplo majoribus unguiculatis subrotundis undulatis, labello transverso emarginato basi auriculato, cristæ tuberculis duobus a fronte maximis intermedio minore duobus a latere minoribus linearibus binis alteris basilaribus circularibus verrucisque quibusdam in medio, columnæ alis nanis rotundatis.——*Brazil;* on trees in the forests of the Organ Mountains, Gardner.——Allied to O. crispum and Forbesii, but distinctly separated by the peculiar form and tuberculation of the lip, and by the very small wings of the column.

BOLBOPHYLLUM hirtum.

(*Lindley Gen. & Sp. Orch. p.* 51.)

This curious plant has flowered with Messrs. Loddiges. It produces a long drooping tail of small whitish flowers, having exactly the smell of Sweet Vernal Grass (*Anthoxanthum odoratum*). The sepals are not only clothed thickly with hairs, but they also have numerous purple oblong glands, especially on the edges. The petals are ovate, and as if serrate with long stiff hairs. Messrs. Loddiges received it from the East Indies, where it grows on trees.

The specific character given in the work above quoted, having been formed from dried and not perfect specimens, the following should be substituted.

B. hirtum, (Lindl. gen. & sp. orch. no. 18. p. 51. *Stelis hirta*, Smith in Rees. *Tribrachia hirta*, Lindl. Coll. Bot. 41.); pseudobulbis elongato-ovatis, foliis lato-ligulatis obtusis scapo glabro brevioribus, spicâ caudiformi multiflora cernuâ pubescente, sepalis acuminatis hirsutis et glandulosis, petalis nanis acutissimis fimbriatis, labello oblongo-lineari emarginato obtuso supra hirsuto, antherâ glandulosâ.

CYMBIDIUM eburneum.

The Ivory Cymbid.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom*, *p.* 173.)
CYMBIDIUM, Swartz.

C. *eburneum*; foliis basi distichis rigidis angustis ensiformibus apice obliquè bilobis acutis, racemo subbifloro decumbente squamis longis acutis sphacelatis imbricatis basi vestito, sepalis petalisque oblongo-lanceolatis subcarnosis acutis undulatis, labello oblongo trilobo laciniis lateralibus rotundatis intermedio triangulari acute crispo, lamellis in unam carnosam pubescentem apice tumidam confluentibus.

The flowers of this charming plant are not only among the largest of the genus, but among the sweetest. They resemble, in fragrance, those of the Chinese Cymbid, than which nothing is more delicious.

The species has flowered with Messrs. Loddiges, by whom it was imported from the East Indies.

Not a spot interferes with the pure ivory white petals, except one long yellow stripe along the middle of the lip.

ONCIDIUM curtum.

The Cropeared Oncid.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

ONCIDIUM, Swartz.

Sect. EUONCIDIA, HETERANTHIA, tetrapetala, macropetala.

O. *curtum;* pseudobulbis . . . ., foliis . . . ., floribus paniculatis, sepalis lateralibus apice tantum liberis obtusis, labello rotundato bilobo undulato basi auriculato, mesochilio brevi, cristâ 5-lobâ tuberculatâ verrucis quibusdam utrinque sparsis et in lineam gyriformem ordinatis, alis columnæ parvis truncatis, antherâ pubescente.

We received this new species in July last from Messrs. Veitch of Exeter, without any account of its history. The beauty of the plant renders it desirable that it should be better known.

At first sight it looks like *O. crispum* or *Forbesii*, but in reality it is much nearer *O. pectorale* (the Breastplate Oncid). From that species it differs in the following particulars. 1. The flowers are smaller; 2. there is more brown in the sepals and petals; 3. there is a broad brown border to the lip; 4. the space between the auricles and expanded part of the lip is very short, with parallel edges; 5. the auricles are broader; 6. the tubercles of the crest are much more broken up, and differently arranged; 7. the anther is downy; and 8. the lateral sepals are nearly united to the point: in the Breastplate Oncid they are free almost to the base.

Fig. 1. represents the column and base of the lip of this species.

GONGORA maculata ; *var.* tricolor.

Three-coloured Spotted Gongora.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)
GONGORA, Botanical Register, vol. 19. *fol.* 1616.

G. *maculata* (Lindley in Bot. Reg. t. 1616. Ib. 1847. t. 17.) ; foliis 5-plicatis obovato-oblongis basi valdè angustatis, sepalis lateralibus è latâ basi angustatis, hypochilio oblongo subtùs convexo basi obtusè bicorni apice truncato angulis acutis in cirrhis duobus longis producto, epichilio acuminato.

Var. tricolor, *Bot. Reg.* 444. misc. no. 40.

There are two accounts of the history of this variety of Gongora ; one that it came from Peru ; the other, for which we have the authority of the late Mr. Clowes's gardener, is that it was detected by John Maclean, Esq., of Lima, on the mountains near Panama in 1841, and by that gentleman presented to the Liverpool Botanic Garden, from whence Mr. Clowes obtained it in 1842.

It is a most beautiful variety of G. maculata. The ground colour of every part of the flower, except the lip, is clear yellow ; the column and petals are delicately banded with rich sienna brown, and a few large clear distinct blotches of the same colour occur on the sepals. The lip itself is white, with a cinnamon stain on the ends of the lateral tubercles and the sides of its upper half.

Miss Drake del.

J. Piccadilly Dec.r 1 1847

ONCIDIUM pelicanum.

The Pelican Oncid.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ. (ORCHIDS, *Vegetable Kingdom, p.* 173.)

ONCIDIUM, Swartz.

Sect. EUONCIDIA, HETERANTHIA, pentapetala micropetala, *labello pandurato.*

O. *pelicanum* (Martius. Bot. Reg. 1840. misc. 216.) ; **pseudobulbis ovatis sulcatis monophyllis, foliis anguste lanceolatis acutis, racemis subcompositis multifloris, sepalis petalisque lineari-lanceolatis undulatis acutis reflexis labello multo brevioribus, labello reniformi emarginato ; laciniis lateralibus rotundatis intermedia multo angustioribus, crista glabra basi convexa tunc quinquedentata apice bidentata, columnæ alis magnis oblongis denticulatis apice acutis.**

This plant is very closely akin to *O. reflexum*, from which it differs principally in the sepals and petals being less blotched, in the lateral lobes of the lip being smaller in proportion to the intermediate segment, and in the tubercles of the crest, which is smooth, not downy, being rather differently arranged. The name has doubtless been given in allusion to the column, which is not unlike a pelican pecking her breast.

We entertain no doubt of its being the species intended by Dr. von Martius, for the specimen now figured was obtained from a plant sent from Mexico by Count Karwinsky to Messrs. Loddiges, and Count Karwinsky was a valuable contributor of Mexican plants to the Garden at Munich, under Dr. von Martius's care.

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C.1 Zigadenus glauca — 1.47
Allium coeruleum 3.51
Sowerbea laciflora — 4.10
Calliprora lutea — C.1590
Tritelia laxa — 7.1685
Caloscordium nothoscordum 10.5
Hypoxoxis proliferus — 1. 8
— tenuis — 1.50
— intricatus — 3.4
Hesperoscordium lacteum C.1439
Ornithogalum montanum 1.28
— divaricatum 5.28
— marginatum 8.21
— maximum — 8.39
Scilla fratensis — 2.43
— peruviana — C.48
Dauberiya serbica — 2.53
Berberis empetrifolius 3.27
— Coriaria — 1.46
— pallida — 7.14
— ternifolia — 7.26
— umbellata — 7.44
— trifoliata — 8.10
— actinacantha — 8.55
C.3 Xerophyllum setifolium C.1613
Asagraea officinalis — 2.33
7.1 Æsculus Chinensis — 1.51
8.1 Tropæolum azureum 5.65
Boronia crenulata 1.12
— triphylla — 4.47
Tetrathica juncea — 7.67
Diplolæna Dampieri 4.64
Euphoria Longan — 7.1729
Evea cordata — 7.1698
— chlorotoma — 1.17
Gobeckia stellata — 7.55
Marcetia coccinea C.31
Centradenia rosea — C.20
Godetia albescens — 5.9
— grandiflora 9.61
Œnothera tenella C.1587
— pumila C.1593
— biennis — C.1604
Œnothera fruticosa 4.11
Clarkia elegans — C.1575
Lismonia Douglasii — 7.1673
Fuchsia cylindracea 1.66
— fulgens — 1. 1
— Standishii — 3. 2
— corymbiflora 3.70
— radicans — 4.66
— cordifolia — 4.70
— splendens — 5.67
— serratifolia — 8.41
Manlea begonifolia — 1. 61
Gaylussacia pseudovaccinium 7.62
Daphne cneorum — 1.54
Edgeworthia chrysantha 10.48
Combretum grandiflorum C.1631
8.3 Fagopyrum cymosum 9.26
Polygonum amplexicaule 2.46
8.4 Francoa appendiculata C.1645
10.1 Chorizema cordatum — 1. 10
— varium — 7.49
— spectabile — 4.45
Oxylobium capitatum C.16
— obovatum C.36
Gompholobium venulosum C.1574
— tenue — C.1615
— vernicolor — 2.43
Gastrolobium villosum — 10.45
— retusum — C.1647
Burtonia conferta — C.1600
Pultnæa rosmarinifolia C.1584
— subumbellata — C.1632
— flexilis — 7.1694
Bibelia speciosa — 4.58
Bauhinia corymbosa 2.47
Jurinea lobata — 7.4
Guaiacum officinale — 2.9
Rhododendron arboreum 7.1684
— Rollisoni — C.25
Pernettia angustifolia var. C.42
Pernettia mucronata 7.1675
Arbutus laurifolia — 2.47
Arctostaphylos pungens 7.37
— glanduligera — 3.22

Crotalaria verrucosa 8.22

Arctostaphylos rufida 8.32, 11.3
Comarostaphylis arbutoides 6.30
Clethra quercifolia — 5.23 11.7
Lucuqualis sinensis — 7.13 12.1
10.2 Royena lucida — 9.18
Hydrangea japonica — 7.41
Saxifraga hypnoides — 9.33
— ciliata — 6.65
Dianthus brignani — 1.29
— ferrugineus — 1.15
10.3 Silene Schafta — 9.20
Deutzia scabra — 7.1718
— stramina — 10.13
— corymbosa — 3.5
Stigmaphyllum crenatum 7.1459
— jatrophaefolium 7.7
10.4 Echeveria secunda — 3.57
— lurida — 4.1
— rosea — 5.22
— acutifolia 5.29
— Scheerii — 8.27
— retusa — 10.37
10.5 Oxalis Bowiei — 6.1585
— divergens — 6.1623
— fruticosa — 4.41
— rubrocincta — 5.44
— sensitiva — 8.68
Viscaria oculata — 6.53
Zonium cruciatum 4.61
— Youngianum 7.35
11.1 Galardinia speciosa 6.1598
— arenaria 6.1605
— discolor 2.14
Portulaca Gilliesii — 7.1472
— Thellusonii 3.31
— splendens 6.34
Talinum teretifolium 6.1
Heimia salicifolia 4.60
Cuphea strigillosa 9.14

Euphorbia rigida — 1.43
— venata — 1.6
Sempervivum orbicum — 7.1741
Cactus speciosissimus — 6.1596
Cereus hybrid — 6.1565
Opuntia aurantiaca 6.1606
— monocantha — 7.1726
Echinocactus Eyriesii — 1.31
— acrogonus — 7.1717
— Eryesiesii — 1.31
— Ottonis — 1.42
— Scopa — 2.24
Cereus leucanthus — 3.13
— coccineus — 5.49
— crenatus — 7.31
Disocactus biformis — 8.9
Philadelphus hirsutus — 1.14
— gordianus 2.32
— laxus — 2.39
— mexicanus 5.38
Callistemon intermedium 1.7
Babingtonia camphorosma 5.10
Hypocalymma robustum 6.8
Amygdalus persica — 6.1586
— incana — 2.58
Lindleya mespiloides 7.27
12.2 Crataegus crenulata — 7.32
Pyrus crenata — 7.1655
Amelanchier florida — 6.1589
Spiraea vacciniifolia 3.17
— Kamtschatica 4.4
— Reevesiana — 7.10
— Lindleyana — 8.33
— pubescens — 10.38
Mesembryanthemum rubicinctum 7.1732
12.3 Rubus rosifolius — 6.1607
Potentilla glandulosa 6.1583
— insignis — 4.37
— bicolor — 8.62

— Jasminum azoricum 8.43

13.1 Papaver pyrenaicum — 6.1570
— Limnocharis Humboldtii 6.1640
13.2 Paeonia Moutan — 7.1678
— — Brownii — 2.30
— — Wetmanniana — 9.9
13.3 Hibbertia perfoliata — 6.64
Delphinium intermedium 1.38
— — — v. 1.52
— — laxiflorum 1.30
— — decorum — 3.64
13.4 Platystemon Californicum 7.1679
— Eschscholtzia crocea 7.1677
13.5 Aquilegia glauca — 3.44
— — jucunda — 10.19
— — leptoceras — 10.64
13.6 Nelumbium caspicum 7.14
Talauma Gandollii — 7.1709
Anemone rivularis — 5.8
— — obtusiloba — 7.65
— — japonica — 8.66
Clematis florida v. 1.25
— — lathyrifolia — 2.61
— — montana — 3.53
— — hexapetala — 9.44
— — crispa — 9.60
— — pedicellata — 10.21
Trollius acaulis — 6.32
Helleborus odorus — 6.1643
— — lividus — 1.54
— — orientalis 5.34
— — olympicus 5.56
14.1 Dysophylla stellata — 8.23
— Ermostachys laciniata 8.52
— Stachys inflata — 7.1697
— Beckium bicolor — 6.13
— Cedronella pallida — 9.29
— Phlomis Lachmeriana 7.22
14.2 Gesneria Suttoni — 6.1627
— — discolor — 6.43
— — zebrina — 5.16
— — longifolia — 5.40

Achimenes rosea — 4.65
— — longiflora 5.19
— — pedunculata 5.31
— — hirsuta — 6.53
— — grandiflora 8.11
— — picta — 8.42
— Kohleria oblonga — 5.5
Gloxinia pumonis — 7.59
Gloxinia tubiflora — 8.3
Bignonia Tweediana — 3.45
— — picta — 5.45
— — Carolina — 7.54
Eschynanthus maculatus 4.28
— — grandiflorus 4.49
— — miniatus 9.61
Calceolaria floribunda 4.19
Amphicome Arguta 1.19
Pentstemon gentianoides 1.3
— — crassifolius 1.16
— — barbatum — 2.21
— — gentianoides 8.16
— — miniatus 10.11
Tetranema mexicanum 6.52
Chelone centranthifolia 7.1737
Martynia fragrans 4.6
Ruellia macrophylla 9.7
— — lilacina — 9.13
— — — v. 9.45
Strobilanthus scabra 4.32
Lancasteria parviflora 9.12
Aphelandra aurantiaca 8.12
Henfreya scandens — 10.31
Selago distans — 8.46
Mastacanthus sinensis 9.2
Clerodendrum fragrans 1.41
— — splendens 5.7
— — infortunatum 7.19
Myoporum serratum — 8.15
Linaria Dalmatica — 7.1683
Nemesia floribunda — 1.39
Mimulus roseus — 6.1591

Crotreum aurantiacum 8.22
— — glanduligera — 3.22

	Mimulus Smithii	7.1674
	Torenia concolor	9.62
	Petrostigma grandiflora	9.16
	Collinsia bicolor	7.1734
	Chaenostoma polyanthum	10.32
	Drymonia bicolor	1.4
	Anthocercis viscosa	6.1624
15.1	Mathiola odoratissima	2.25
	Iropsidium acaule	9.51
	Heliophila trifida	9.64
	Cleome lutea	4.67
16.1	Patersonia sapphirina	2.60
	Rigidella flammea	3.16
	—— immaculata	4.68
	Eleutherina anomala	6.57
	Hydrolaena Meleagris	5.39
	Libertia formosa	6.1630
	Candollea tetrandra	6.50
6.2	Passiflora Phoenicea	6.1603
	—— kermesina	6.1633
	—— gossypiifolia	6.1634
	—— onychina	1.21
	—— verrucifera	3.52
	Tacsonia mollissima	9.11
	Astiria rosea	7.49
16.3	Bessera elegans	2.34
16.4	Geranium tuberosum	2.10
	—— rubifolium	3.67
	—— eriantheum	5.52
	Brownea grandiceps	4.30
	Hovea Manglesii	1.62
	—— racemulosa	6.4
	—— ilicifolia	7.58
	Lalage ornata	7.1722
	Bossiaea disticha	4.55
	—— paucifolia	6.63
	Scottia laevis	6.1652
	Oxyramphis macrostyla	9.28
	Genista bracteolata	3.23
	—— virgata	7.11
	Cytisus Weldenii	6.40
	Calycotome spinosa	9.55

	Adesmia Loudonia	7.1720
	Lupinus elegans	6.1581
	—— rivularis	6.1595
	—— albifrons	6.1642
	—— leptophyllus	7.1670
	—— densiflorus	7.1689
	—— nanus	7.1705
	—— ramosissimus	8.25
	—— Ehrenbergii	10.11
	—— Hartwegii	2.31
	—— Barkeri	2.56
	—— leptocarpus	3.38
	—— arvensis	7.1
	Macleania longiflora	7.25
16.8	Malva umbellata	6.1608
	Hibiscus splendens	6.1629
	—— Wrayae	3.69
	—— —— var.	7.28
	—— moscheutus	10.7
	Abutilon vitifolium	7.57
	Trochetia grandiflora	7.21
17.2	Corydalis bracteata	6.1644
	Trichinium alopecuroideum	2.28
17.4	Indigofera dosua	5.57
	—— stachyoides	6.14
	—— decora	9.22
	Colutea nepalensis	7.1727
	Swainsonia Grayana	9.66
	Clianthus carneus	4.51
	Onobrychis radiata	10.37
	Kennedya nigricans	7.1715
	Zichya tricolor	2.52
	—— villosa	5.68
	Hardenbergia digitata	3.60
	Mucuna pruriens	1.18
	Cajanus bicolor	8.31
	Erythrina poianthes	6.1617
	—— Bidwillii	10.9
18.2	Loasa Placei	6.1599
	—— lateritia	1.22
19.1	Mulgedium macrorhizon	9.17
	Triptilion spinosum	4.22

Tasmannia aromatica 8.43

Sayfauria pulchella — 5.18
Barnadesia rosea — 6.29
Liatris scariosa — 7.1654
Eupatorium glandulosum 7.1723
Stevia fasciculatis — 1.39
Morna nivea — 1.19
Helichrysum macranthum 1.58
Rhodanthe Manglesii — 7.1703
Senecio cruentus — 2.7
—— populifolius — 2.45
Stenactis speciosa — 6.1577
Aster adulterinus — 6.1571
—— cordifolius — 6.1597
—— eminens — 6.1614
—— concinnus — 6.1619
—— puniceus — 6.1636
—— eminens — 7.1654
Diplopappus incanus — 7.1693
Brachycome iberidifolia 4.9
Cosmos scabiosoides 1.15
Dahlia glabrata — 3.29
Boebera incana — 6.1602
Cenfolectia pulchra 3.28
Echinacea Dicksoni 1.27
19.3 / 20.1 Cirrhopetalum Thouarsii 1.21
—— Medusa 5.12
—— Chinens — 6.49
—— auratum 6.61
Liparis guineensis 7.1671
Coelia Baueriana — 5.36
Bolbophyllum umbellatum 8.44
—— bracteolatum 1.57
—— macranthum 7.13
Trichosma suavis — 5.21
Eria ferruginea — 2.35
—— armeniaca — 4.42
—— convallarioides 4.62
—— polyura — 5.32
—— floribunda — 7.20
—— bractescens — 7.29
—— vestata — 8.2
—— convallarioides 10.63
Paxtonia rosea — 1.60

Dendrobium aggregatum 7.1695
Dendrobium speciosum 6.1610
—— aureum — 2.20
—— sulcatum — 1.65
—— cucumenatum 2.22
—— Jenkinsonii 2.37
—— formosum 2.64
—— discolor — 4.52
—— sanguinolentum 6.6
—— rhombeum 6.17
—— taurinum 6.28
—— cucumerinum 6.37
—— aqueum — 6.54
—— Ruckeri — 6.60
—— compressum — 7.53
—— Kingianum 8.61
—— Dalhousieanum 9.10
—— aduncum 9.15
—— tridenium — 10.1
—— chrysotoxum 10.36
—— Kuhlii — 10.47
—— cretaceum — 10.62
Epidendrum oncidioides 6.1623
—— variegatum 2.11
—— glumaceum 3.6
—— vitellinum 3.35
—— cinnabarinum 5.25
—— ochraceum — 1.26
—— Schomburghii — 1.53
—— raniferum — 5.47
—— lancifolium 5.50
—— pterocarpum 7.34
—— radiatum — 7.45
—— verrucosum 7.51
—— dipus — 8.4
—— plicatum — 10.35
—— pyriforme 10.50
—— alatum — 10.53
Chysis bractescens — 4.23
Brassavola Martiana 2.5
—— venosa — 3.39

Cestrum aurantiacum 8.22
—— glandulígera — 3.22

Brassavola glauca — 3.44
——— Digbyana 9.53
Leptotes bicolor — 6.1625
Cattleya Perrinii — 1.2
——— Aclandia — 3.48
——— labiata — 3.58
——— granulosa — 5.1
——— pumila — 7.5
——— granulosa — 8.59
——— maxima — 9.1
——— Lemoniana — 9.35
——— bulbosa — 10.10
Arundina densa — 5.38
Ania bicornis — 7.8
Laelia furfuracea — 2.26
——— autumnalis — 2.27
——— albida — 2.54
——— rubescens — 3.41
——— acuminata — 4.24
——— flava — 5.62
——— majalis — 7.30
——— praemuscularis — 8.69
Bletia gracilis — 7.1681
——— Gebiana — 10.60
Phajus albus — 1.33
Sarcochilus calceolus — 9.19
Spathoglottis Fortunei — 8.19
Maxillaria racemosa — 6.1566
——— Rollisonii — 1.40
——— tenuifolia — 2.8
——— vitellina — 2.12
——— stapelioides 2.17
——— circulata — 3.12
——— cruenta — 5.13
Lycaste plana — 4.35
——— gigantea — 8.34
Eriopsis biloba — 10.18
Burlingtonia maculata 2.44
Huntleya Meleagris — 2.44

Stenia pallida — 1.20
Colmeiroa rosea — 6.39
Houlletia vittata — 4.49
Aganisia pulchella 3.32
Stenorrhynchus lineatum 5.43
——— lucatum 6.33
——— aromaticum 6.56
Warrea oyana — 8.28
Laccena tricolor — 7.50
Govenia liliacea — 1.13
——— fasciata — 8.67
Eycnoches Egertonianum 9.46
Stanhopea cirrhata — 7.1725
Catasetum cristatum 7.1647
——— serrulatum 7.1708
——— stalkeri — 1.63
——— maculatum 3.62
——— — 4.5
——— Trulla — 4.34
——— pilaricephe 6.9
Cycnoches pentadactylon 6.22
Monacanthes discolore 7.1735
Acanthophippium bicolor 7.1738
——— javanicum 9.47
Batemannia Colleyi — 7.1714
Grobya Amherstiae 7.1740
Phalaenopsis amabilis 1.34
Stauropsis quadricornis 1.5
——— tigrina — 2.1
——— Mortiana — 4.44
——— Bueptralus — 8.24
——— inodorus — 8.63
Anguloa Ruckeri — 9.41
——— uniflora — 7.60
——— Clowesii — 7.63
Gongora maculata — 6.1616
——— furfurea — 2.51
——— Luerssenia — 4.2
——— truncata — 8.56

Tasmannia aromatica 8.43

Lycaste Lyoniana — 10.17
——— maculata — 10.69
Peristeria Humboldtii 6.18
Cymbidium pendulum 3.25
——— pubescens 4.38
——— pendulum 7.24
——— Mastersii — 8.50
——— eburneum 10.67
Schomburgkia crispa — 7.23
——— tibicinis 8.30
——— undulata — 8.53
Grammatophyllum multiflorum 5.69
——— 2.65
Bromheadia paleacea — 7.18
Geodorum fuscatum — 7.1687
Galeandra Baueri — 3.49
Coryctophoium Andersonii 4.8
Lissochilus roseus — 7.12
Rodriguezia crispa — 3.54
Miltonia cuneata — 8.8
Oncidium Harrisonianum 6.1569
——— altissimum — 6.1631
——— ciliatum — 7.1660
——— amplicatum 7.1693
——— varicosum 1.48
——— luridum — 2.16
——— pulvinatum 2.47
——— trulliferum 2.57
——— Cavendishianum 3.14
——— ornithorhynchum 3.10
——— longifolium 5.4
——— ophtacelatum 5.30
——— micropterum 5.34
——— bicallosum 6.12
——— microchilum 6.23
——— uniflorum 6.43
——— bicolor — 6.66
——— spilopterum 8.40
——— incurvum — 8.64
——— lacerum — 9.27
——— amictum — 10.66
——— cultum — 10.68
——— pelicanum 10.70
Comparettia coccinea — 1.68
Brassia Lawrenceana — 4.16
——— brachiata — 10.29
Aerides africana — 9.30
Vilurina Lacca — 9.57
Vanda cristata — 5.54
——— Batemannia — 9.59
——— violacea — 10.30
Renanthera matutina 6.1641
Odontoglossum Rossii — 7.148
——— maculatum 3.30
——— Bictoniense 5.64
——— pulchellum 4.48
——— citrosmum 6.3
——— Lowe — 7.39
——— Cervantesii 8.39
——— Warscewiczii — 10.20
——— membranaceum 9.34
Cyrtochilum maculatum — 1.44
——— mystacinum — 2.62
——— filipes — 4.59
——— flavescens — 6.1627
Cleisostoma conosum — 10.41
Saccolabium miniatum — 10.56
Aerides crispum — 5.53
——— virens — 7.41
——— maculosum — 8.58
Angræcum gladiifolium — 3.68
——— bilobum — 4.35
——— pellucidum — 7.2
Calanthe discolor — 3.55
——— sylvatica — 6.1646
——— Masuca — 7.37

Cestrum aurantiacum 8.22
——— glanduligera — 3.22

Calanthe curculigoides — 10.8
20.4 Orchis foliosa — 7.1701
Bartholina pectinata — 7.1653
Satyrium pustulatum 3.18
Coryciium orobanchoides — 1.45
Ophrys cornuta — 9.52
— fuciflora — 10.25
Ophrydes Graeca — 10.46
20.5 Sobralia sessilis — 4.17
Cryptostylis sanguinea 1.23
Stenorhynchus cinnabarinus 8.65
Chloraea virescens — 8.49
Sauroglossum elatum — 6.1518
20.8 Cypripedium spectabile — 7.1654
— barbatum — 5.17
— Praestantum 9.58
Stylidium Brunonianum 5.13
— pilosum — 5.41
Aristolochia Chilensis — 7.1680
— gigas — 5.60
21.6 Hollisia latifolia — 9.49
21.7 Duvaua ovata — 6.1568
— dependens — 6.1573
— latifolia — 6.1580
— longifolia — 7.3
21.6 Akebia quinata — 10.28
21.9 Begonia Scapicaulis — 5.44
— heracleifolia — 7.1648
— albo-coccinea — 9.34
21.10 Thuja filiformis — 5.20
Schubertia grave olens — 9.21
Trichosanthes colubrina 9.18
22.4 Gaertnera elliptica — 7.1686
22.6 Xerbtes longifolia — 7.3
22.12 Sphaerostema prostratum 7.1688
23.1 Inga Harrisii — 2.41
Mimosa Uruguensis — 5.33
Neptunia plena — 9.3
Acacia spectabilis — 6.46
— Mafta — 9.67
Jasmanria aromatica 8.43
Maytenus chilensis 7.1702
Diplopeltis Hugelii 2.69

Arranged according to Loudon's Hortus Britannicus, except the Orchideæ, which are after Sweet's Hortus Britannicus, 3rd. Edition.